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Address.

A PLEA FOR EXPLORATORY OPERATIONS.

CHAIRMAN'S ADDRESS, DELIVERED BEFORE THE SECTION ON SURGERY AND ANATOMY AT THE FIFTY-FOURTH ANNUAL SESSION OF THE AMERICAN MEDICAL ASSOCIATION, AT NEW ORLEANS, MAY 5-8, 1903.

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MINNEAPOLIS.

One duty of the Chairman of this Section, as prescribed by our by-laws, is to open the exercises with a brief comment on some surgical topic or topics of live interest.

During the past year no one subject has been of such paramount interest as to overshadow all the rest, but a steady and even rapid advancement has been made along old lines, and an exceptional amount of preliminary work or foundation laying has been done along new lines. More time and money have been expended in original research than in any previous year. The year has been made memorable by the permanent location in New York of a great laboratory for medical research, which has been placed in the hands of most eminent men, and from which we have reason to expect great results. The prevailing sentiment in the surgical world is one of wholesome conservative optimism.

Those of us who began the study of medicine before Koch made his immortal discovery of the tubercle bacillus can recall how hopelessly we endeavored to comprehend the term scrofula, that mantle of our ignorance which has happily disappeared, and how after this discovery the clouds began to disappear like snow before the sunshine. Have we not much greater reason, by virtue of our laboratories of research, to hope for the discovery of the cause of cancer in the near future?

Many of our medical colleges have established laboratories for the instruction of students in operations on animals, and these laboratories are being used more and more each year by practical surgeons in experimental work for the perfection of their technic and for original research. Every surgeon, no matter how much laboratory and experimental work he may have done, or how good a clinician he may be, will frequently meet cases in which conditions obtain within some one of the great cavities of the human body which are endangering the life or comfort of his patient, and which, after having exhausted all ordinary means of diagnosis, he can not diagnosticate. Under these conditions the surgeon should primarily, in the interest of his patient, and, secondarily, in his own interest, perform an exploratory operation. The mere fact that with our aseptic methods we can open the abdomen or the head with impunity gives us no license to make this a means of diagnosis until after all other methods have been exhausted. Nor does the fact that a man has learned to be reasonably certain of his asepsis entitle him to this privilege until after he is thoroughly familiar with both normal and pathologic conditions that he may find. I know of one instance, for example, in which a man opened an abdomen and was then unable to differentiate between the bladder and the sigmoid flexure, yet this patient did not die from sepsis. Such a man has no moral, and should have no legal, right to open an abdomen. This is simply an example of one of the dangers of asepsis.

This humble plea for exploratory operations is made with diffidence, for, "Fools rush in where angels fear to tread," and if this were an accepted method of diagnosis without most rigid restrictions, the ignorant and inexperienced would be the most ready to resort to it.

Owing to the brief time allotted for the reading of this address it will be limited to exploratory abdominal operations.

The term exploratory operation in this paper means a free opening made by the knife. The aspirator and the grooved needle no longer occupy a very prominent place as a means of diagnosis among surgeons, unless it is at the bottom of a wound. It is an open question whether these instruments have done more harm or good. Even the grooved director, which at one time occupied so important a place in a surgeon's armamentarium, has fallen into "innocuous desuetude."

We should no longer be content to divide our cases into operative and non-operative until after we have exercised the same care to form an accurate diagnosis that our colleague, the internist, would, and in addition, in doubtful cases, have made an exploratory incision, for some cases which from external examination would be pronounced inoperable prove on closer inspection to be operable, and in many cases in which a radical operation can not be performed a palliative operation may add somewhat to the patient's life and save him from a great amount of suffering.

It is in the abdomen that the exploratory operation is most frequently indicated, for in this region it is comparatively free from danger, and almost invariably results in some benefit to the patient. It is very rarely, indeed, that a good surgeon will make an exploratory abdominal incision without finding some condition which can be benefited.

At the beginning of abdominal surgery, which is within the recollection of many of those present, most operations were exploratory and were made for conditions in the pelvis, but at the present time, thanks to our accumulated experience and to the fact that in this region we can make bimanual examinations with one

or more fingers inside, the diagnosis can and should, as a rule, be made before operation. In a case, however, in which a surgeon strongly suspects an ectopic pregnancy without being able to make a positive diagnosis, it is safer to make an exploratory opening than to take the chances of a rupture. Bimanual examination through the rectum is sometimes more helpful than through the vagina, and should never be neglected in doubtful cases.

After a traumatism, when the symptoms indicate a rupture of the bladder, an exploration should be promptly made. An abdominal opening is safer and better in these cases than the injection of either air or liquids. Up to ten years ago the mortality following operations for rupture of the bladder was about 65 per cent., but since then it has dropped to 25 per cent. or less, and this is very largely due to the fact that explorations have been more promptly made. The only other prominent factor in reducing this mortality is that we have learned not to include the mucous membrane in our stitches. Occasionally we will find that a patient who is in collapse, with excruciating pain in the lower abdomen and an empty bladder, has a sound bladder but a ruptured intestine, which makes an exploratory opening even more imperative because of the septic character of the bowel contents.

Every surgeon has so much experience in the right iliac region that he usually feels quite certain of his diagnosis, yet we all meet with some cases in which we are in doubt and in which exploration should be the established rule. Few of us regret having followed this rule, and we all have had occasion to regret its neglect. There is a class of cases in which the patient complains of chronic indigestion accompanied by constipation and some pain and tenderness in the region of the appendix, in which an exploratory opening will disclose a chronically inflamed appendix, which may contain an enterolith and which may be surrounded by peritoneal adhesions, and in which the removal of the appendix will entirely relieve the symptoms. No experienced surgeon would hesitate to advise operation in such a case when the patient gave a history of having had an acute attack of inflammation in this region; but there are a great many such cases demanding operation in which the patient has never had an acute attack. Almost all cases of acute appendicitis, if not every case, has as a sequel a chronic appendicitis, but there are a great many cases in which the order is reversed, and the acute attack is the sequel of a chronic inflammation.

Surgery in the abdominal regions above the umbilicus is not nearly so well developed as it is below that point. Gall-bladder surgery is farther advanced than that of any other organ in this region, but even here we have much to learn. At the present time we are learning that in a good many cases drainage of the gall bladder is not sufficient, but that it must be removed. If our medical brethren will learn to refer to us for exploration their patients suffering from chronic "dyspepsia" and "gastralgia," to whom they have been giving pepsin and bismuth for years without benefit, we can demonstrate to them that most of these patients are suffering from gallstones, and that all of them have some mechanical condition which can be relieved by surgery. Until the surgery of this region is much better understood than it is now, acute epigastric peritonitis should indicate exploration, because there are so many etiologic factors here, some of which demand immediate operation and which we are as yet unable to differentiate. Diseases of the pancreas, for example, which are exciting so much interest in the surgical world, have no pathognomonic symptoms, and exploration is our only means of positive diagnosis. In acute hemorrhagic pancreatitis the patient's only hope is in early exploration, for without it the diagnosis will only be made at the postmortem.

Perforative symptoms in this or any other region, from any known or unknown cause, in civil life, demand exploration so long as the patient is not in articulo mortis.

The consensus of opinion among surgeons who have had the most experience in surgery of the stomach is, that when malignant disease of that organ is so far advanced that a positive diagnosis can be made by ordinary means, radical operation is almost hopeless, and exploration with the view of palliative operation is scarcely worth while, because the immediate mortality about offsets the time added to human life by these operations. Chemical, clinical and all other means of early diagnosis of malignant disease of the stomach have failed us, and our only hope is in early diagnosis by exploration followed by radical operation. The most interesting point bearing on this subject at the present time is the relation between gastric ulcer and cancer. Clinicians have long maintained that in a certain percentage of cases gastric ulcer stands in a causative relation to carcinoma. That percentage has been gradually increasing until now at least one eminent authority (Fütterer) believes that all cases of carcinoma of the stomach are preceded by ulcer. If this is true, all gastric ulcers should be operated on as soon as it is demonstrated that they will not heal under medical treatment.

It is estimated that at least 65 per cent. of penetrating wounds of the abdomen are perforating. Taking this conservative estimate as a working basis we should assume that all penetrating wounds are perforating, and in civil life we should make an exploratory operation as soon as possible. To wait for symptoms of perforation means to wait for peritonitis, and this is not in keeping with modern surgery. The mortality following operation for perforating abdominal wounds is probably not over 25 per cent. in competent hands, and will be still less when the rule advocated in this paper is better understood by general practitioners. Timidity and hesitation in these cases always means loss of time, and loss of time often means loss of life. Although typhoid perforation is usually looked on as being a different proposition from perforations from other causes, it should be treated by the same surgical rules because perforation from this cause terminates fatally just the same as from any other cause. The fact that the patient is ill before the perforation makes operation all the more imperative. When symptoms during typhoid indicate perforation, exploration should be promptly made. When the patient's condition contraindicates a general anesthesia, which is very rarely, the opening should be made under cocain. Reported cases teach us that operation may save life when the patient is seemingly hopeless. Although prompt operation should be advocated and practiced, my personal experience teaches that all hope is not lost even at a late date. Of three cases of typhoid perforation operated on the only one that lived was operated on three days after the perforation occurred.

Although surgeons have long and persistently advocated early exploration in obstruction of the bowels, our medical confrères, with many honorable exceptions, have not yet grasped the situation. The attitude of many

medical men in this matter is beyond comprehension. With a 95 per cent. mortality rate staring them in the face they very often neglect to call in the surgeon until it is too late. Our homeopathic brethren are the worst offenders in this grave matter, for they usually give the patient a dose of medicine every fifteen minutes until he dies. The excuse usually given by the medical man for his neglect in these cases is that he was not sure of his diagnosis, and that he does not approve of the knife as a diagnostic agent. Exploration has enabled us to reduce the medical mortality of 95 per cent. in these cases to 45 per cent., and when we secure the co-operation of all practitioners it will fall much lower.

At this point I can not refrain from calling attention again to the restrictions that should be thrown around exploratory abdominal operations, for it is worse than useless for an inexperienced operator to open the abdomen in suspected perforation, or in cases of obstruction of the bowels, except when the obstruction is caused by strangulated hernia.

Chronic peritonitis is a condition very frequently demanding exploration. When the condition is tubercular the operation *per se* will often prove curative. We have learned with the development of abdominal surgery that the old idea that all cases of chronic peritonitis are tubercular was a mistaken one. The majority of cases of chronic peritonitis are the sequels of acute appendicitis, salpingitis or cholecystitis, but a great many cases develop independent of an acute inflammation. There are many chronic invalids in every community suffering from peritoneal adhesions caused by chronic non-tubercular peritonitis who could be restored to health and comfort through an exploratory opening. It is very important to remember that a patient may be a great sufferer from peritoneal adhesions who has never had an acute abdominal inflammation. When making an exploratory operation in a case of suspected peritoneal adhesions it is very important to so locate the incision that all parts of the abdomen may be reached. My personal preference is for an incision through the right rectus muscle, large enough to admit a hand, thus enabling the surgeon to explore the pelvis, the appendix and the gall bladder.

In conclusion, allow me to express the hope that this brief paper will be understood as denouncing the abuse of exploratory incisions as emphatically as it advocates their use. An earnest endeavor has been made to make such clear statements that no honest man can offer them as an excuse for the unwarranted substitution of the knife for surgical knowledge or diagnostic ability, and to convince the doubting ones that their refusal to use the knife as a means of diagnosis where other means have failed is to sacrifice human life on the altar of prejudice.

Fatal Emotions.—Keraval is director of an insane asylum in France, and he reports three deaths occurring there recently which demonstrate anew that a vivid emotion is capable of affecting the cerebral circulation to such an extent as to entail lesions immediately or rapidly fatal. One patient was a man of 41, with atheromatous degeneration, but apparently robust. He succumbed to a cerebral congestion induced by intense delight at the news that he was to be released from the asylum. The other cases were those of a man of 65, with ideas of persecution, and a man of 57, a general paralytic. Both died from cerebral congestion following a comparatively slight annoyance. The autopsy revealed in the last case the fresh hemorrhage among the lesions of old meningo-periencephalitis.—"Nord. Méd.," vi, 30.

Original Articles.

ILLUSTRATIONS OF MIXED INFECTIONS IN PULMONARY PHTHISIS,

WITH NOTES ON COMPARATIVE TREATMENTS.

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ASHEVILLE, N. C.

The important significance of mixed germs and certain débris of the respiratory organs in phthisis is evidenced by the confusing variety of grave symptoms and lesions that accompany them and their too frequent fatal sequence. Yet the problems of mixed infections in this ruthless malady are still considered very largely with the same old indifference and skepticism that bred empirical treatments one hundred years ago. Impractical theories continue to sway a vast army of medical and laymen. The practitioners who seriously undertake to differentiate and individualize among their tubercular patients, with a view to ascertain the true conditions existing, and select appropriate remedies and proper nutrition are still in the minority; and the patients who look upon consumption with discriminating common sense are few. For many of the profession and laity consumption is consumption and usually fatal anyway; for a large number of others, in all walks of life, they will procrastinate till broken down, and then expect relief or cure in a few weeks or months—a thing impossible without a miracle. This is very unfortunate, because many consumptives are curable if they have the courage to begin to arrest the development early enough, the patience to persist, and if they are not too dissipated. No case is cured quickly. On the other hand, too many rash promises are made by too many doctors in desperate cases.

In order to present the significant differences in the microbiology and pathology of the various classes of consumptives, and suggest the errors of stereotyped treatments and the reasonableness of discriminate therapeutics, I beg leave to present a résumé of clinical and laboratory observations dating back a few years. For the purpose I have reviewed carefully a number of microscopic slides and macroscopic specimens and sections prepared for diagnosis and medical advancement in the course of practice. In fact, I have ransacked clinical histories related thereto and many works bearing on the subject. I shall here attempt to place briefly the most important data and findings before the profession. Each of the microscopic pictures represents the important things found in a given specimen of sputum. In some of them, however, I have grouped the findings of two or more differently stained slides of one expectoration in order to render more appreciable and clearer the various germs and débris present in the case. The macroscopic cut needs no attention at this point.

Fig. 1 shows the usual appearance of sputum in pure, so-called subacute pulmonary phthisis. Pus cells, bronchial epithelial cells, bacilli of tuberculosis and some mucus are present. There were none of the complication germs in this case of the kind and quality that do harm. The patient presented an area of dulness about three inches in diameter below the right apex, some fine moist murmurs and considerable expectoration, which was occasionally grayish and occasionally yellowish, or a mixture of both colors. Few bacilli of tuberculosis were present. The patient had come from

a country home away from the influence of smoke. In my opinion the grayish color was due to pathologic pigmentation and not to carbon inhaled. (This is often the case in most of gray sputa, many observers to the contrary notwithstanding.) He had been coughing six months and had lost twenty pounds and had had night sweats several weeks. His temperature had seldom risen above 101 2/5 F. in the afternoons; mornings it had often been subnormal. Being a case of clear tuberculosis, he was placed under the serum therapy as the specific basis of anti-tubercular treatment, and the various special phenomena of his malady were met as they appeared by such measures as were deemed best at the time. Nourishment and out-door air were of course insisted on. Neither creosote, guaiacol or inhalations were used. All these had been employed without good results for six months previously. Creosote and guaiacol seemed to have produced a severe form of dyspepsia, which yielded only to weekly lavage of the stomach. He steadily improved and got well in the course of eighteen months. He has shown no sign of illness for over four years. Infiltration seems to have disappeared absolutely. It would be difficult now, if not impossible, to find any lesion by any form of examination. Indeed, an insurance examiner of experience failed to find anything wrong in his chest.

The most significant features of this case are that it presented the evidence of pure pulmonary tuberculosis; that there never existed in the sputum any of the pathogenic germs that so frequently complicate tuberculosis; that the temperature seldom was higher than 101 2/5 F., and that the case recovered under the natural law measures indicated above, whereas he had been going down grade steadily and rapidly under the influence of the haphazard treatments which had been enforced before. This is one instance of several in my experience tending to show that pure tuberculosis is curable, often with comparative ease, by serum alone, provided such serum has been tested and is really effective. Such a product is not common on the market.

Contrast this case with the next two illustrated, viz.: pictures designated as Case 38 and Case C. The one marked No. 38 presents pus cells, bacilli of tuberculosis very few, and two forms of pus germs—the streptococci and staphylococci, each of them in small number. The sputum which contained these germs was gathered during the existence of an extensive area of more or less dense consolidation and involvement of lymphatic glands. All three of these classes of microbes are poison producers. Five weeks previous the patient had presented unmixed tuberculosis. He in the meantime contracted typhoid fever, and after his recovery from it the pus germs were present. Soon after small vomicæ were found. His temperature arose a few times as high as 103 F. at night, and there appeared occasionally night sweats and chills, but generally the highest point was 101 F. This was when the pus germs were few. The disease gained ground steadily in spite of all possible care, and the remedial measures applied included many remedies approved by authoritative teachers. Classic inhalations, which were begun at the first sign of softening, served seemingly to increase the irritation. Creosote injured the stomach and kidneys. Combined antiseptic and antitubercle sera were used without changing the situation. The strychnin tonics, iodin and sera, combined, and climate had a better effect, causing reinforcements which prolonged life three years. Here we had not higher fever than in pure tuberculosis, except when pus bacteria were numerous, and it was produced doubtless largely by pus toxins, or the mixture of these toxins and tubercular poison, and also by the influence of the lesions and their débris. Did not such complications argue earnestly for discriminate treatment?

Now consider picture of Case C and note all the differences carefully. The picture of its sputum shows pus cells, bacilli of tuberculosis, tetragenii and staphylococci (the latter numerous), each kind of which is capable of producing toxins that may separately, in a measure at least, cause cell, nerve and blood poisoning and fever. What special damage the combined toxins may cause I will not undertake to say. It is sufficient for our purpose to know that this mixed case, with only a very few small tubercular spots scattered in the upper third of one lung, exhibited temperature to 102 F. in the afternoon, coughed and expectorated a good deal of muco-pus with yellowish tinge, and did not do well under antitubercular serum alone. The disease yielded somewhat to a combined treatment, including antitubercle and antipyogenic sera hypodermically with iodin and various forms of judicious inhalations of respiratory sedatives and disinfectants. The patient is patched up, perhaps, only for a limited time. Yet to-day (five years after manifestation of disease) he is living in comparative comfort, without fever, and is working. But there yet remains in him evidence of lesions in quiescent state. These are liable to break down in the future, although with proper care he may retain his improvement.

I now draw your attention to Fig. 4, designated as of "Clinical Records," 1902. It shows sputum containing epithelial cells, few pus cells, tubercle bacilli, pneumococci, and some pyogenic bacteria. This patient exhibited infiltration in the upper half of the front of the right lung, with considerable aching opposite that locality. Fever arose as high as 104 F., but usually wavered between 100 and 103. A confused kind of pneumonia, limited in area, existed, and persisted for three months, after which resolution began and progressed slowly for weeks, leaving the lung impaired in elasticity, but not crepitant. Bronchial râles of a mucous kind were of course often present. Finally the pneumococci disappeared and the pus germs increased. As long as the latter were present in large quantities the temperature ranged from 99 F. in the morning to 102 F. in the afternoon. Later the pus germs decreased considerably, the bacilli of tuberculosis remaining scattered; then the fever wavered between normal and 99 or 100 F. At the time of this writing the temperature was between 97 and 99 F.

As soon as placed under my care this case received treatment applicable in limited pneumonia lesions of this type. It would, I am sure, have been useless to have put such a case under the influence of any therapeutic measure strictly within the line of the routine or specific treatments of consumption. What, for instance, could forced or voluntary inhalation have accomplished? Nothing but harm. The case lives in semi-comfort.

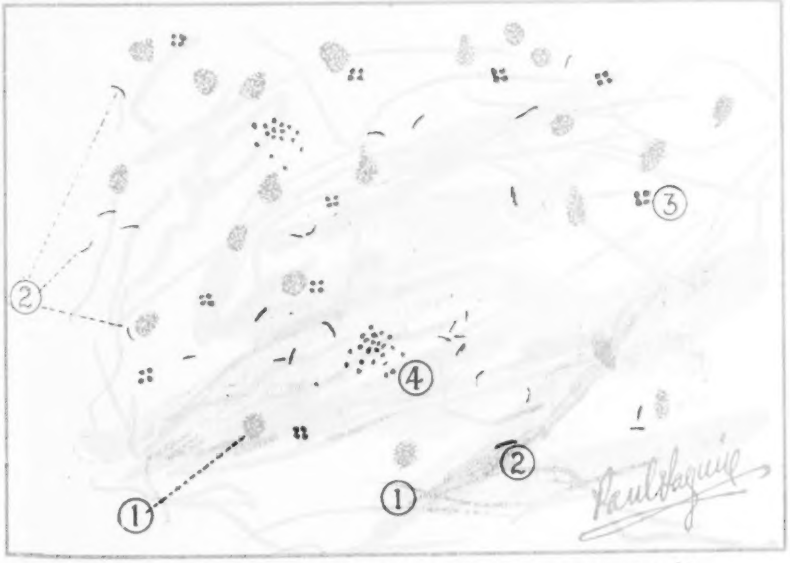
The microscopic display in Fig. 5 is from a case with a cavity four years old. La grippe and hemorrhages had been the first features of the development of the malady. The patient had done poorly most of the time for two years—la grippe recurring three times at least—but for the last year the case has presented comparatively few bacilli of tuberculosis, and this rarely. Cicatricial tissues and membranes seem to be slowly forming in the cavities and the healing process seems to be generally gaining ground. A mixed treatment,

A CASE OF UNMIXED INFECTION OF TUBERCULOSIS.
① BACILLI OF TUBERCULOSIS. ② PUS CELLS.
③ EPITHELIAL CELLS.
TEMPERATURE 96 TO 101⅘ °F.

FIG. 1.

CASE 38-RECORDS 1899-1900 ① PUS CELLS
② TUBERCLE BACILLI. ③ STREPTOCOCCUS
④ STAPHYLOCOCCUS.
TEMPERATURE 99 TO 103 °F.

FIG. 2.

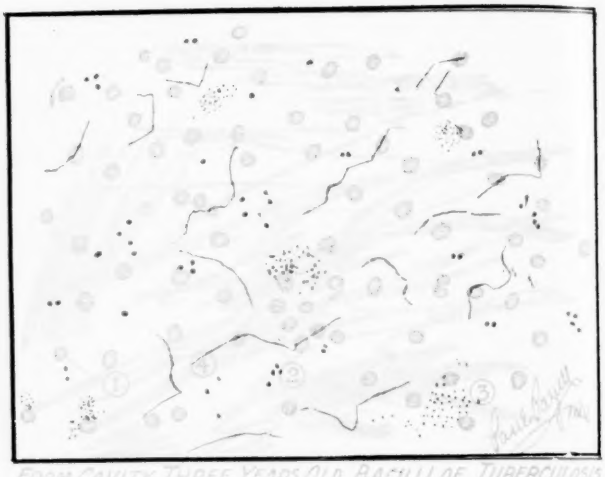


CASE C-THREE YEARS AFTER EVIDENT MANIFESTATION OF CONSUMPTION. ① PUS CELLS- ② BACILLI OF TUBERCULOSIS.
③ MICROCOCCUS TETRAGENUS. ④ STAPHYLOCOCCUS ALBUS.
TEMPERATURE 97⅘ TO 102 °F.

FIG. 3.

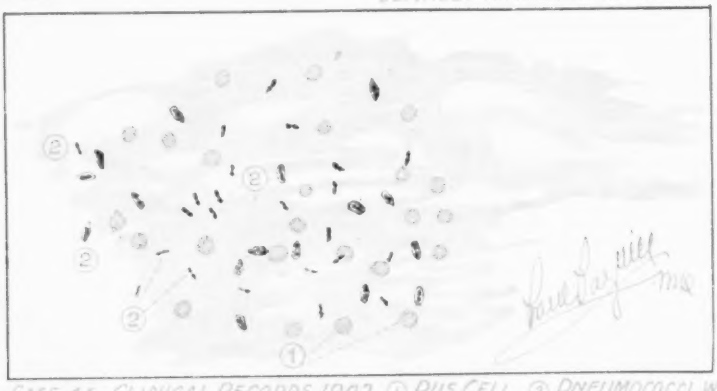
CLINICAL RECORDS 1902. ① EPITHELIAL CELLS. ② PUS CELLS. ③ BACILLI OF TUBERCULOSIS. ④ PNEUMOCOCCI ⑤ MICROCOCCUS PYOGENES ALBUS. TEMPERATURE 99° TO 104° F.

FIG. 4.



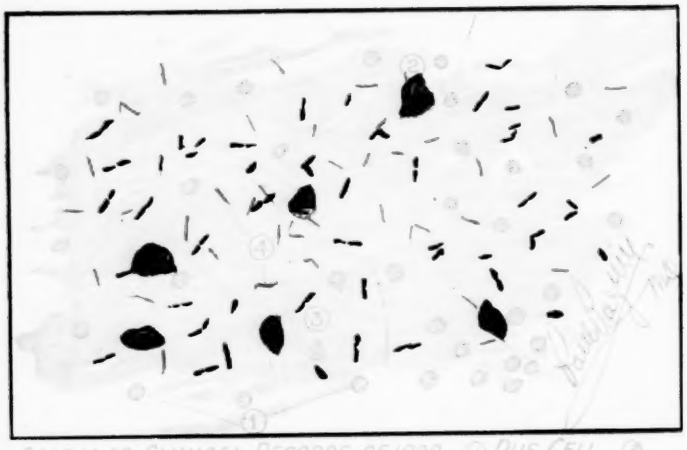
FROM CAVITY THREE YEARS OLD. BACILLI OF TUBERCULOSIS ABSENT SEVERAL MONTHS. PATIENT NOW ABOVE NORMAL WEIGHT. ① PUS CELL. ② STAPHYLOCOCCI. ③ ZOOGLEA OF FINE COCCI UNDEFINED. ④ FILAMENTOUS BACILLI UNDEFINED. TEMPERATURE 95° TO 98⅘° F

FIG. 5.



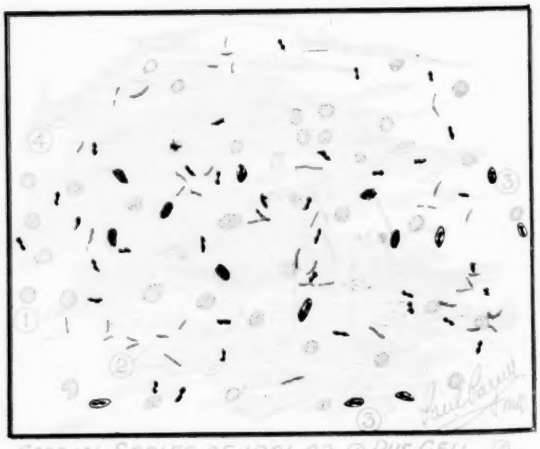
CASE 44. CLINICAL RECORDS 1902. ① PUS CELL. ② PNEUMOCOCCI WITH & WITHOUT VISIBLE ENVELOPE. TUBERCLE BACILLI HAD BEEN PRESENT UNTIL ONE WEEK PRIOR TO CONGESTION IN WHICH THESE GERMS APPEARED. TEMPERATURE 99° TO 103⅘° F.

FIG. 6.



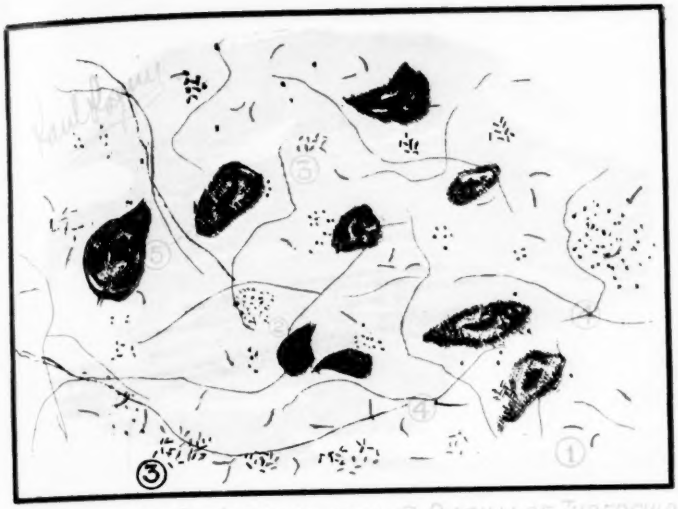
CASE 16 OF CLINICAL RECORDS OF 1900. ① PUS CELL. ② EPITHELIAL CELL ③ PNEUMOBICILLUS (OF FRIEDLANDER) ④ BACILLI OF TUBERCULOSIS. TEMPERATURE 99° TO 103° F.

FIG. 7.



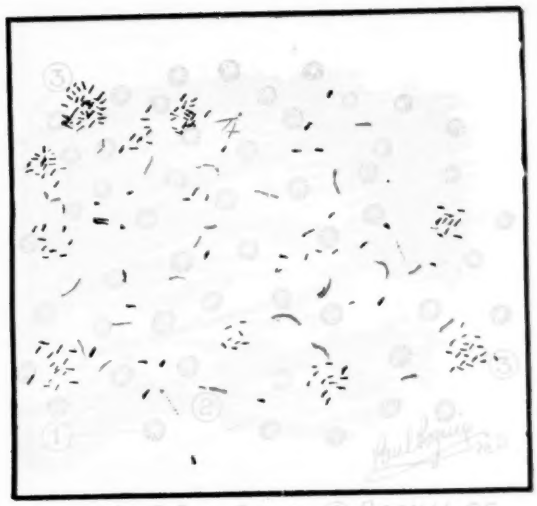
CASE IN SERIES OF 1901-02. ① PUS CELL. ② BACILLI OF TUBERCULOSIS ③ PNEUMOCOCCI ④ CHARCOT-LEYDEN CRYSTALS OF ASTHMA. TEMPERATURE 99⅘° TO 103⅘° F.

FIG. 8.



CASE OF DR B. ANALYSIS 1901. ① BACILLI OF TUBERCULOSIS. ② GROUPS OF UNDEFINED COCCI. ③ SMALL BACILLI - PROBABLY PFEIFFERS GRIPPE GERM. ④ FILIMENTS KNOWN AS LEPTOTHRIX BUCALIS. ⑤ EPITHELIAL CELLS, UPPER AIR PASSAGES.

FIG. 9.



CASE AA. ① PUS CELLS. ② BACILLI OF TUBERCULOSIS. ③ NUMEROUS PYOCYANUS BACILLI (GREEN PUS) TEMPERATURE 97° TO 101° F.

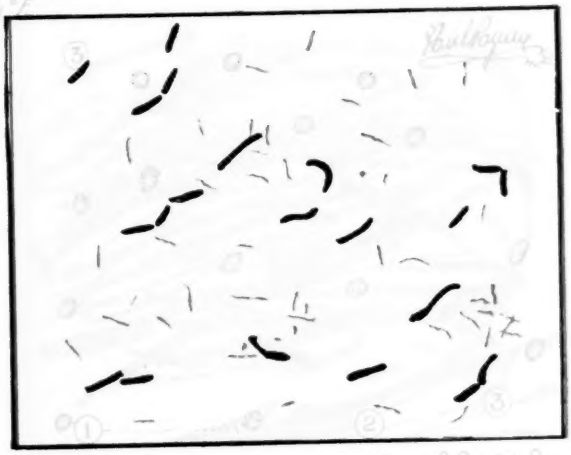
FIG. 10.

CASE II OF RECORDS OF 1899. FOETID EXPECTORATION ① PUS CELL ② BACILLI OF TUBERCULOSIS. ③ LARGE BACILLI, PROBABLY THE LUMNITZER BACILLI OF FOETID BRONCHITIS. TEMPERATURE 97⅘° TO 101°4/5 F.

FIG. 11.

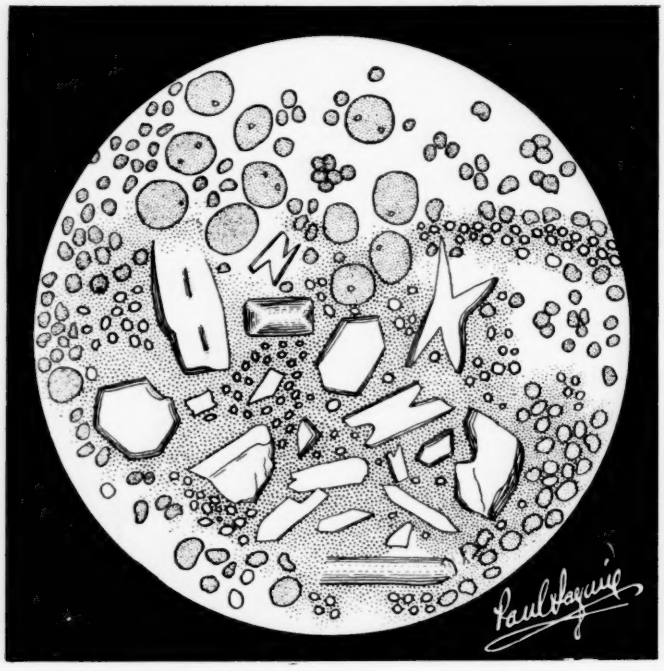
CASE NO. 13 OF RECORDS 1898-99. LA GRIPPE & TUBERCULOSIS PRESENT. ① PUS CELLS. ② BACILLUS OF TUBERCULOSIS. ③ DIPLOCOCCUS IN CAPSULE. (PERHAPS AN INFLUENZA GERM) TEMPERATURE 98 4/5° TO 102 2/5° F.

FIG. 12.



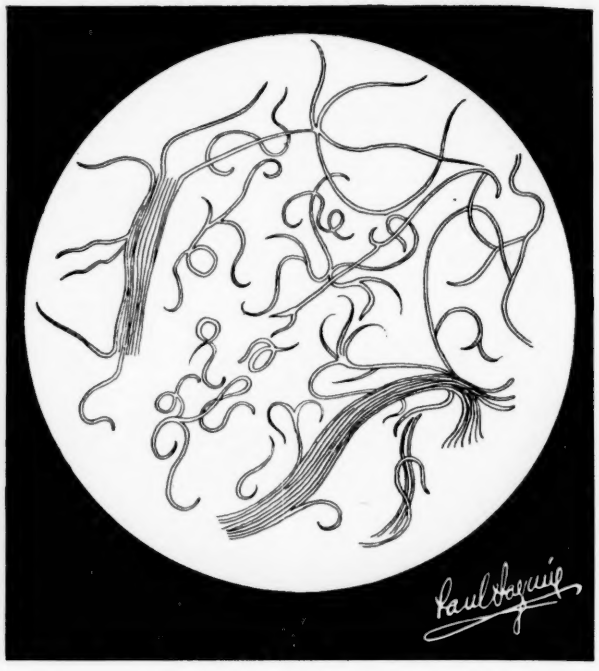
NO. 12 OF RECORDS 1901-02 (CASE BB) ① PUS CELL. ② BACILLUS OF TUBERCULOSIS ③ LOOKS LIKE THE ORGANISM KNOWN AS BACILLUS CRASSUS SPUTIGENUS. (PATHOGENIC GERM) TEMPERATURE 96° TO 100 2/5° F.

FIG. 13.



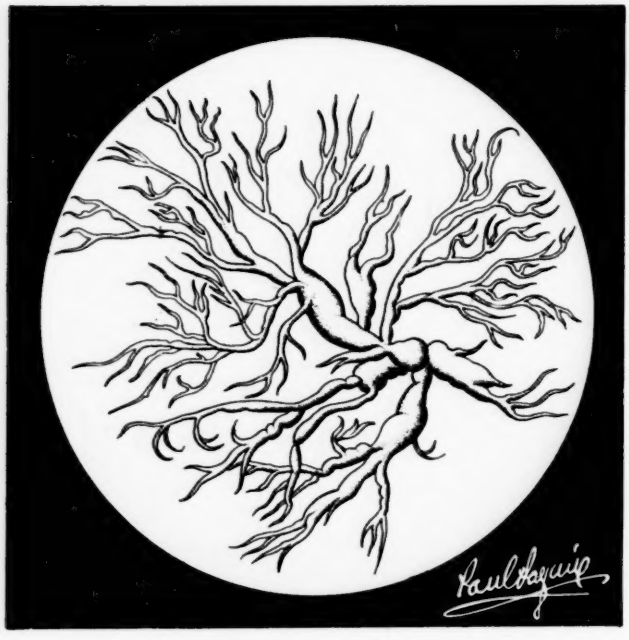
Material in Sputum of Bronchiectasey - Peyer - Author found such sputum material in complicated case of tuberculosis and Bronchiectasey - 1894.

FIG. 14.



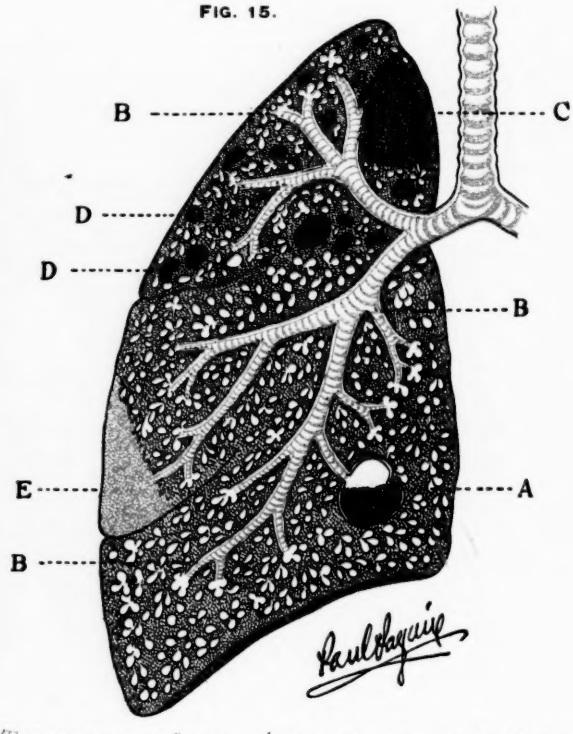
Elastic Fibres in tuberculosis. Found in cases of softening, etc.. Important diagnostic & prognostic Feature. - (from Peyer, Paquin and others.

FIG. 15.



Fibrinous cast of small bronchi (Peyer & others Rarely met in tuberculosis. Found by the author in few instances under special conditions.

FIG. 16.



Tubercular Lung. Adapted from Da Costa and recent case of Paquin's. Ⓐ Cavity with pus. Ⓑ Ramifications of large bronchi. Ⓒ Dense consolidation in apex. Ⓓ Scattered Tubercular lesions. Ⓔ Infiltration.

FIG. 17.

including serum as the chief remedy, the cacodylates and climatology, are constantly in use.

This expectoration shows the existence of staphylococci in small numbers, some zooglea of more minute cocci, which I am not prepared to name, and some bacilli, also of an undesignated character. At one time the bacilli of tuberculosis, different pus and air germs, were numerous, and the temperature then ran as high as 103 F. When this specimen was taken the tubercle bacilli happened to be absent, as they had been for some months, and the temperature did not reach higher than 99 F. In fact, the last year it rarely ran over this point, except during occasional periods of congestion. At present, however, in the morning it sometimes goes down as low as 96 and 95 F. without appreciable discomfort. (Such a depreciation of temperature in the morning is not an uncommon thing in many kinds of tuberculosis.) The patient is now better nourished than at any period of her life, being several pounds above her best weight of her healthiest days. Temperature still wavers between 96 and 98 F.

The sixth picture of the series, Case 44, shows pneumococci and pus cells. The patient had tubercular laryngitis mildly and a large consolidation with pain in the upper third of the left lung. The temperature ranged between 99 and 103 F. Three months before the bacilli of tuberculosis alone had been found. The patient escaped my observation during this period, after which he again presented himself for examination. At this time a congestion of the diseased lung was manifesting itself, the pneumococci appearing in small numbers, as in this cut. In two days, however, they increased enormously. Evidence of congestion and some inflammatory manifestations remained for several weeks. Then a few bacilli of tuberculosis were found. After the pneumonia symptoms had disappeared these bacilli appeared in greater numbers than ever before, but the temperature went down to between 98 and 100 F.

Here is a case of localized pneumonia, complicating consumption, something like in the preceding exhibit, and naturally it suggests also forms of treatment other than those for simple or different forms of mixed tuberculosis. Such measures were instituted, specific and general, to fit the conditions at the proper moment, including special diet, milk, cream, plasmon during sore throat particularly. The patient is now at work, walking miles daily, as an insurance agent, but he is hoarse, though not suffering.

The next picture, known in my records as No. 16, 1900, presents a peculiar mixed infection of tuberculosis. In it are exhibited Friedlander's pneumobacilli, with bacilli of tuberculosis, amid a considerable amount of pus and a few epithelial cells. This case, which died a couple of years ago, suffered at first in the right lung, front and back, from top to bottom, almost complete consolidation. No treatment succeeded in reducing it in the least. Portions of it softened after a while and were expectorated in pieces mixed with pus. About that time the left lung became seriously involved, and finally death resulted. These pneumobacilli remained almost to the last—long after various pus and putrefaction germs had appeared. The temperature never was normal and often went as high as 105 F. It usually wavered between 99 and 103 F.

The eighth figure or case in series 1901 and 1902 is intended to show the finding of the microscope in the sputum of a patient who was suffering from asthma and tuberculosis, with a very limited area of consolidation. The bacilli of tuberculosis and pneumococci were present, and here and there we see Charcot-Leyden crystals and pus cells. As long as the pneumococci remained in large numbers and the infiltration kept prominent the temperature went as high as 103 2/5 F. By degrees resolution took place to a considerable extent, and these germs finally disappeared. The lungs remained impaired, however, and the bacilli of tuberculosis are still present at this writing. But fever with these germs alone does not rise higher than 100 F.

No argument is necessary to show in this case also the need of some circumspect, judicious differentiation in diagnosis and treatment.

Picture 9 (from a patient of Dr. B.) presents a rare combination of débris and bacteria. It includes nasal, bronchial and pharyngeal secretions and excretions with germs. In it we see bacilli of tuberculosis, some fine cocci that do not resemble much, and yet perhaps are, Pfeiffer's influenza (or grippe) bacteria, some long *Leptothrix buccalis* and some epithelial cells. I do not know the history of this case further than was indicated by this presentation, and that la grippe was said to exist in the patient when the sputum was gathered.

I now draw your attention to the tenth picture, designated as AA. In it you will find pus cells, bacilli of tuberculosis and small bacilli of green pus. In this case, analyzed in 1900, there existed scattered areas of consolidation, having respectively, doubtless, a tubercle or more as their nucleus. Patient suffered greatly from bronchorrhea, the matter from which was usually green in the morning. Bacilli of tuberculosis were not always present. Temperature seldom went higher than 99 F. Occasionally it reached 101. He has remained under my observation for nearly three years and is still living, although practically incapacitated for regular manual labor. Remedial measures, including hygiene, nourishment, climate, the cacodylates with iodin used at proper times, and occasionally antitubercle serum, seemed to have served the purpose of holding him in comparatively good condition and free from suffering. There is a decided improvement since 1900.

Fig. 11, designated as Case II, 1899, records bacilli of tuberculosis and other chief characteristics of sputum of a peculiarly offensive kind, which came from a case that fell under my observation in 1899. This patient also suffered from profuse bronchorrhea, but the color of the sputum was brownish and had a very fetid odor. He died with evidences of gangrene a few weeks after my first examination. Every form of supposedly useful treatment, including antiseptic inhalations, had been used without avail before I was called in consultation, and further efforts were not more successful. The patient had used creosote at enormous doses daily for a year without benefit.

The twelfth picture shows germs that I found in the sputum of a case which I examined for a St. Louis physician in 1898. You will notice that the bacilli of tuberculosis are present, some small pus cells and small diplococci and single cocci, with and without surrounding envelopes. (The difference in appearance of these supposedly grippe germs and those seen in Fig. 9 may be due to different staining processes and microscopic amplification.) Temperature 98 4/5 to 102 4/5 F.

The thirteenth picture, No. 12 of records, marked BB, shows the germs found in a patient who died in a sanitarium in 1901. He was not under my care and the history of the case is not at hand. This picture is shown chiefly to present a large germ which I had never found but once before in connection with tuberculosis.

While these thirteen pictures are practically all of different kinds, it will be noted that some pneumonia germs were present in four instances. In my experience of many years the pneumococcus has been present and a common complicator of pulmonary tuberculosis. It is perhaps as frequently found as either of the pus germs that reach the lungs, and sometimes assists in the pathologic processes.

If so many kinds of germs and complications in phthisis indicate anything, they surely indicate the necessity to pay the strictest attention to exact methods of differential diagnosis, whether the cases appear before us early or late, and that we can never be sure that we are applying proper measures without possessing proper knowledge of the pathology of each individual.

I shall now present to you a few pictures of another class, leaving out the bacteria, but showing certain débris and lesions which also have their indications in therapeutics. Two or three of these illustrations are familiar to most of my readers; they have been borrowed in part or in whole or adapted from Peyer and Da Costa.

In the first of these are to be seen the debris found in bronchiectasy. I have seen but one case in which tuberculosis and this bronchial affection clearly coexisted. But the combination is probably more common than this instance would indicate. The material in this expectoration includes pus cells, fatty globules (probably from broken-up leucocytes) and crystals of triple phosphates (irregularly formed) produced by the liberation of ammonia from the nitrogenous compounds in presence of magnesium. Bacilli of tuberculosis in such a mixture are not easily stained, and some other germs, too, are sometimes hard to discover. But the voluminous amount and mixed nature of expectoration in similar conditions should not mystify us or lead us to hasty conclusions eliminating tubercular complications. Prolonged observations, oft-repeated analyses in the course of weeks and months, may be required for proper diagnosis.

Next we come to the elastic fibers, Fig. 15, the significance of which every physician knows. Unfortunately, in sputum analyses they are too often overlooked or neglected. When it is known that they constitute evidence of the destruction of lung tissue, even in early stages of softening, their presence or absence should in all cases, if possible, be established as a guide in prognosis and treatment.

In the third of these, or Fig. 16, is represented a fibrinous cast of bronchi usually existing but rarely expectorated in cases of chronic croupous bronchitis, and very rarely found in connection with tuberculosis. In this particular case, however, the bacilli of tuberculosis had been present in small numbers, but there had been a prior history of chronic bronchial catarrh. At the time the patient came under my observation both sides of the bronchial tree suffered from this condition and dyspnea was very great. Partial infiltration of small areas existed here and there in both and increased slowly. All treatments failed to produce any good results. One day this patient, after using home inhalations of creosote, guaiacol and other antiseptics in glymol, which he had kept up under the advice of another physician for some months, undertook to climb a hill three hundred feet high. On his return he was seized with very serious congestion of both lungs and severe coughing, and died, asphyxiated, in two hours.

Next in order is the consideration of certain important gross lesions in pulmonary tuberculosis. For this purpose I here exhibit an illustration, Fig. 17, showing the essential common features in certain stages of phthisis. With it before us, and bearing in mind the microbiology of tuberculosis, as discussed in this paper, let us endeavor to realize the merits and demerits of various treatments and their effects on the anatomy, the physiology and mechanism of the respiratory organs, as well as, in a measure, on the system generally.

This section of the right lung, trachea and large bronchi shows the following structures and lesions: first, the lower half of the lung appears sound, excepting a cavity (*a*) (although in this half of the lung the tissues may contain concealed small tubercles); second (*b*), the distribution of the large ramifications of the right bronchial tree (down to about the point where the bronchi are about one-sixth of an inch in diameter), penetrating infiltrated and consolidated spots in their course and communicating with the cavity mentioned above; third, a dense and old consolidation (*c*) at the apex, with slight surrounding infiltration; fourth (*d*), tubercle centers scattered in upper third with sound intervening tissue; fifth (*e*), a diffuse, comparatively new infiltration at the side in the middle lobe.

Now, it may be well at this point to refresh our memory about the normal anatomy and physiology of the lungs in order to realize the nature and significance of these lesions and the kind of therapeutics indicated.

Briefly, the lungs consist of a mass of aerial tissue made up of lobules which are "joined together by interlobular cellular membrane, each lobule constituting a distinct lung in miniature, having its own separate vein and artery; that these lobules do not communicate directly with each other;" that their ultimate terminals consist of a collection of microscopic air cells, "alveoli of exceedingly delicate nature, ranging in size from 1/200 of an inch to 1/100 of an inch in diameter," which are in communication with the air by means of filiform bronchioles; that these bronchioles are formed of delicate circular and longitudinal elastic fibers with flattened epithelium up to the point in their outward course, where they reach 1/24 of an inch in diameter; that further out they possess cartilage and a mucous coat, and gradually become larger and denser and stronger as they simplify and progress toward the trachea; that the pulmonary artery accompanies the bronchi branch for branch to the minutest divisions (making possible direct medication by means of the blood); "that the circulatory system forms a network of capillary blood vessels of the alveoli where the exchange of the gases (the oxygen of the air and carbonic acid of the system) takes place;" that amid this capillary network of the alveoli, beneath the endothelial layers, there exist lymph spaces which communicate with lymphatic vessels, that get eventually in communication with the air on one hand and the pleura on the other, thus opening innumerable channels for lymphatic and pleuritic infection by microbes inhaled into the lungs.

The important facts I wish chiefly to draw attention to are that the remote divisions of the bronchioles are of microscopic size, therefore invisible to the naked eye; that their infundibula are made up of minute cells of about 1/200 of an inch in diameter, and that the mass of the lungs consists of inflated, spongy tissue, which these cells and connected structures form, and that the blood vessels permeate them everywhere, assisting in the exchange of carbon for oxygen, and finally, that a system of lymph vessels, glands and interstices involves all the air cells and puts them in communication with the outside air and pleural cavity.

We may add that the bronchi, large and small, and the air cells secrete mucus and that, under irritation, they may form sufficient of it and of certain pathologic material to fill them more or less and obstruct patches of lung enough to prevent sufficient communication with the air; and, furthermore, that by inflammatory processes the plasma of the blood may in part filter through the vessels and cause infiltration of the lung tissue, making it more or less impermeable to the air inspired.

The facts related in the two preceding paragraphs suggest and explain some questions of interest in tubercular pathology and therapeutics. To begin with, the anatomy and physiology of the lymphatic system in the lungs show how nebular intrapulmonary medication is wholly impotent in perhaps all cases involving the necessity of reaching lymphatics, which is so common. The lymphatics do not breathe, therefore the vaporized drugs can not get into them. This anatomy and physiology show also how and why we have so many cases of tubercular pleurisy and so many kinds of secondary tuberculosis in various organs of the system. Diffusion of the disease germs takes place through the lymphatic channels.

In the circulatory system, affecting the spongy tissues so thoroughly, we find, on the other hand, the explanation of the success often obtained in the treatment of tuberculosis by internal or hypodermic medication where direct lung measures fail. More of this farther.

To bring the important question of therapeutics to a focus, I will specify that there are two chief divisions of treatment. First, the aerial division, which includes in part climatology, pure or medicated air, and the artificial efforts to drive remedies directly down into the lungs; second, the circulatory division, which means all the efforts to reach the lungs and influence the system generally by means of the blood and lymph circulation. This includes internal medicine, hypodermic injections and dietetics, either of which can be of service only after absorption of the remedy or food in the system. Both of these divisions have their advocates, both have their usefulness and limitations, and both are abused by those who prescribe mindless of pathology (among whom, by the way, are very widely known men, who seem not to understand analytical work or have it done crudely by inexperienced persons). In the first or aerial division belong numerous, often reckless, usually haphazard forms of inhalations, tracheal injections, sprays and nebula, which in their place and at the proper time have a measure of usefulness. How far can inhalations reach, for instance? Even if the normal anatomy and physiology of the lungs permitted it, it is evident that the consolidations exhibited in the picture of the section of the lung here presented would allow very little or no air to reach the alveoli or to reach properly even the periphery of the lesions, far less the structure of the central portions. By what law, I ask those who commend and apply intrapulmonary medication generally or as a routine practice, can any form of pressure cause medicated air, or any other remedy, to reach the ultimate structure of such diseased tissues and heal them? Is there any way to force nebula into such patches? Decidedly no, and when it is remembered that all tubercles, large or small, are to some extent accompanied by more or less consolidation, which precludes even proper natural respiration, who can not realize the futility of all efforts to force inhalations into them? Yet it is claimed that not only such consolidations *en masse* can be reached by fine nebula, but that the air cells that constitute them can also be medicated by this means under a pressure of thirty, forty or eighty pounds! This claim is so remarkably contrary to known physiologic and pathologic facts that one who reads it or hears of it wonders at the daring of those who advocate it before the intelligent minds of the medical profession. It is wholly incompatible with the laws of physics and physiology. Indeed, while nebulized medicines are really very fine divisions, these are individually visible to the naked eye, and to drive one of them down in an air cell would be practically like forcing a globe the size of a baseball into a receptacle the size of a marble.

It must be remembered, besides, that the air cells are always partly filled with residual air, which can not be forced out, and that these cells can not be unduly dilated without tearing them open. Furthermore, the lungs within and without sustain an average (at our altitude, at least, Asheville, N. C.) of 10 to 12 pounds of pressure. They are maintained in their natural condition of partial expansion by this in and out equilibrium of air pressure. Suppose the pressure within the lungs is increased without compensation on the outside, what law would prevent dilation or rupture? We see, then, that certain kinds of intrapulmonary medication preached to the profession and public are far from always being right and safe. In truth, only three benefits can be derived from the best forms of direct pulmonary medication; that is to say, from tracheal injections and inhalations, to-wit: a limited degree of disinfection of such parts as such treatments may reach; second, a limited palliative influence over such irritated points as they traverse or touch (more or less poorly), and, finally, a limited degree of influence in subjugating cough. In no case is the *indiscriminate* use of such measures and their medicines right, and some conditions sometimes forbid them; for instance, seriously inflamed bronchi and acute congestions. To obtain the results possible by nebular medication, all that is necessary is to have an apparatus capable of forming fine nebula or sprays, such as the Globe Nebulizer or the Robertson and De Vilbiss instruments, and then have the patient inhale proper remedies at their leisure; or a room may be filled with nebula or medicated vapors. High pressure simply makes finer nebula; these, as made, are sent with the full force back of them into the throat, from which the patients breathe in what they can. It does not appear to be good practice to apply 40 to 80 pounds of pressure into the throat of tubercular patients. They have more than enough trouble in keeping their throats from hyperemia and secondary infections without increasing the tendency to these dangerous conditions by unnecessary rough treatment of sensitive and delicate membranes. Evidence showing the correctness of this estimate is not wanting.

I need not dwell on the value of the second division or circulatory medication. It is established beyond controversy that certain drugs in certain forms can be sent through the lungs by means of the blood just as easily as they can be sent to all tissues that receive nourishment. Whoever knows the physiology of the circulation must accept this as a fact. It is true that those lesions which are more or less solid fail to receive blood freely, but even they absorb the essentials of the blood from neighboring sources. Besides, this form of medication, administered hypodermically or otherwise, may be used so as to produce most beneficial effects by direct and indirect influences on the blood, the nerves, the digestive organs, etc., etc.

Having in mind the numerous different kinds of pulmonary tuberculosis, we can not escape the conviction

that many forms of treatment now in vogue, besides the mechanical means discussed here, are also useless and some of them dangerous, if not fatal, when applied without respect to the pathologic conditions present at the time, as, for instance, the use of creosote in a reckless manner and the abuse of alcoholics. Nor is full knowledge and realization of tubercular pathology and microbiology sufficient for the best work. It is, moreover, necessary to realize the condition of the digestive, eliminative, circulatory and nervous organs and to apply properly the means necessary to correct whatever faults they may exhibit. Observe, for instance, the sudden rise of temperature from normal to 103, 104 and 105 by indigestion alone, or in connection with absorption of pus, etc.! Such conditions do arise, complicating consumption by addition of auto-intoxication to it. I have seen such occurrences (auto-intoxication from the alimentary canal) arrested by one stomach and one intestinal lavage, which, by the way, is a particularly common necessity for the control of digestion, because indigestion is so common in almost every case of pulmonary phthisis in which ordinary drug measures are not always applicable.

To be specific as far as possible on a general question, what, then, constitute the most reasonable and most promising methods of treatment of tuberculosis pulmonalis, particularly in mixed conditions?

The details are not appropriate here. In fact, I have gone already beyond my first intention on the subject of treatment. But there is reason to indicate the basic elements that need be understood in mixed and simple tuberculosis if one is to pursue a right course and try to cure. In all cases we need first, nourishment, by which I mean the assimilation of proper food supplies, including under this head, for convenience, the breathing of proper air. Without these in sufficient quantity and good quality, no remedy will succeed. With them as foundation, diverse treatments, applicable in different conditions, may be properly selected after understanding each case. Thus the reliable, tested antitubercle sera (not the ordinary, untested commercial stuff), the cacodylates, the assimilable and non-irritable iodins, tonics, appetizers, stomach lavage, raw beef juice are useful in probably all cases, provided the proper moments for each or certain combinations of them are not neglected.

No matter what their nature, special complications demand special measures of relief. For instance, pulmonary congestion may be relieved by a hygroscopic plaster; cough by camphor, hyoscyamus, heroin, codein, hydrocyanic acid, etc.; dyspepsia by stomach and intestinal lavage, pepsin, takadiastase, and other dietetics; intestinal auto-intoxication by high colon lavage and intestinal antiseptics; anemia by soluble iron, milk albumin, protonuclein, etc.

I repeat that the most important problem in the treatment of consumption of any kind is that of nourishment. It must be sufficient in every instance or failure is unavoidable. Speaking in a general way, milk, cream, meats, a dozen of whites of eggs in water every day, whole eggs in sherry wine, fish, oysters and appropriate meat juices are among the very best foods. Potatoes and bread are among the most useful of vegetable origin. Unfortunately, in the majority of cases that come to the physicians, there arises the necessity of feeding them, at times, with more highly nutritious and assimilable substances than is afforded by natural products. This is especially common in enfeebled stomachs and sore throats. Thus, in throat tuberculosis, for instance, both local pains and indigestion are usually present. The pain produced by swallowing is so excruciating at times that even water produces torture. In such unfortunates, raw eggs, milk and cream are usually the most easily swallowed natural foods. But they may not always suffice, and often they upset digestion very much. This is often true of sweet milk. I have tried all sorts of artificial nourishments to assist these, or alone in many conditions. I have made numerous trials of many manufactured and home-made products in cases accompanied by poor digestion, assimilation and painful deglutition. Several are pleasant, but few are nourishing enough.

There is one kind of food used by many now which is possessed of special virtue as nourishment and medicine at the same time. It is the fresh juice made daily from raw beef.

Professors Charles Richet and J. Héricourt, both medical experimentalists and teachers of international reputation, presented to the Congress of Medicine in 1900, and afterward to the Academy of Medicine of Paris, many reports on their clinical experiments with such juice in consumption. Since then numerous physicians in every country have verified the claims of these scientists that raw beef juice is not only nutritious to the highest degree, but that it possesses specific curative virtues to arrest the malady. But it must be raw, not heated in the least. Its serum must be unimpaired, for this is internal sero-therapy, so to speak. To get good results large quantities must be given daily—all of the juice of four to six pounds of steak between meals. Strange to say, this does not interfere with the regular meals or the application of a special diet. It will be a pleasant surprise to those who have horror of raw meat to know that this fluid is very palatable and may be made delightful. My experience with raw beef juice in large quantities has been most gratifying, particularly in connection with plasmon, the cacodylates, serum, iodin, etc.

The unfortunate part of this most useful measure is that few presses can extract more than 25 per cent. of the juice from raw meat, thus reducing the chances of its use and making it expensive. I have tried everything in the shape of press I could find on the market, excepting high-priced hydraulic presses, and only the Hayes Meat Crusher have I found to extract more or less easily 75 to 85 per cent. and stand the effects of hard pressing without breaking, but it is in the present size a little expensive. As it is essential, as I have said, to use large quantities of beef juice to get any good results, and, as all that exists in six pounds of good beef is usually necessary every day, it will be seen at once how costly it would be to use presses extracting only 25 or 30 per cent.

In conclusion, I urge the study of the results obtained in France and elsewhere with the cacodylates, reliable sera, iodin and beef juice in consumption.

THE NEW UNITED STATES PHARMACOPEIA.

JOSEPH P. REMINGTON, PH.M., F.C.S.
CHAIRMAN COMMITTEE OF REVISION OF THE U. S. PHARMACOPEIA.
PHILADELPHIA.

The numerous inquiries from all parts of the United States with regard to the appearance of the new Pharmacopeia would seem to require at this time a communication as to the progress of the revision, and the writer takes this opportunity of stating that the work is progressing favorably. On account of the death of the distinguished chairman of the Committee of Revision, Dr. Charles Rice, May 13, 1901, revision was necessarily retarded; nevertheless, the subcommittees

to whom the details had been assigned have performed a large amount of work. The twenty-six members from all sections of our country, composing the Committee of Revision, were selected by the United States Pharmacopeial Convention in May, 1900, to complete the work of revision, because of their fitness for their work, and necessarily the majority are specialists in the various departments of therapeutics, pharmacognosy, chemistry, botany, analytical chemistry and various other departments which are represented.

ORGANIZATION.

The work of the subcommittees is placed, from time to time, before the general committee by the chairman, in the form of a report, and this report is then voted on: the opportunity being given for each individual member to record his approval or disapproval of any of the details, although naturally much greater weight is given by members to the views and opinions of those who have devoted the greater part of their lives to the special work for which they were selected. Communication between members is mainly by correspondence, and the circular letters and private letters which have been sent out during the last two years number over four thousand.

METHOD BY CORRESPONDENCE.

Prior to the year 1880 pharmacopeia revision was conducted through personal meetings of the members, but in 1880 a different method was inaugurated, the committee was enlarged nearly fourfold and the method by correspondence established. The reasons for making the change were mainly to secure a larger geographical representation and a wider scope, because, as our republic progressed rapidly and the center of population moved westward, it became necessary to recognize the changed conditions and make the book as thoroughly representative of all sectional demands as possible. It can not be said, however, that either of the plans of revision—by correspondence or personal meetings of the committee—are without faults. There are members living to-day who have served the committee under both plans. The method by correspondence loses the value of that individual contact which every one recognizes as so important in revision work. Members are oftentimes loth to vote on certain subjects which are out of their special line, as they would greatly prefer to take the judgment of their colleagues, and a personal conference of the committee of twenty-six would result in the settlement of many questions, after hearing argument, in a much shorter time than would elapse after correspondence among the twenty-six members. But it was foreseen, when the change was made to the method by correspondence, that it would be impracticable to have frequent personal meetings of the committee, not only on account of the great expense involved (for some of the members would have to travel from one to two thousand miles), but as each member of the committee is a busy man it would entail great sacrifice and inconvenience to give up all home engagements and meet often at some distant point.

On the other hand, revision by correspondence has many advantages. It places on each member of the committee a greater sense of responsibility for each vote that he sends in to the chairman. His individual judgment is not swayed by oratory or the superior argumentative abilities of a speaker, and he may take more time to arrive at a correct judgment on the question than would be possible at a personal conference. The committee of 1900 has endeavored to secure the merits of both plans, for those questions which can not be well settled by correspondence are deferred until a personal meeting can be held. An experience of twenty years in revising the Pharmacopeia by correspondence mainly has developed many improvements over the methods first adopted, one of the greatest, undoubtedly, being the stability of organization, now assured through the incorporation of the convention and the separation of the purely business functions from the special work of the revision.

DIVISION OF LABOR.

All of the financial work and the publication of the book is now vested in a board of trustees, while the preparing of the manuscript and the revision proper rest alone with the committee of revision. The board of trustees secures information and the co-operation of the interests of the convention and the committee of revision by making the chairmen of these two bodies members of the board. It will thus be seen that the machinery employed to make a new pharmacopeia is not needlessly complex, and it is believed that all interests are properly guarded and the work of the judicious selection of medicines, the best processes for their preparation and the fixing of fair standards will be duly accomplished.

DIGESTS OF CRITICISMS.

One of the most valuable features connected with the work of revision of the Pharmacopeia of 1880 and 1890 has been the preparation of what are known as "Digests of Criticisms." These are bound books which contain a compilation of all of the criticisms and suggestions on the United States Pharmacopeia, gathered from pharmaceutic journals throughout the world. The criticisms are classified and arranged alphabetically, and are published for the benefit of any one interested in pharmacopeial work. They are furnished freely, without cost, except a trifling one to cover postage, and it is thus possible for any member of the committee to have constantly before him, when studying the preparations, all of the published criticisms that have appeared up to the time of the publication of the digest. It can easily be seen that this most excellent method, which was devised by our late chairman, will prove of the utmost value to the members.

INTERNATIONAL PHARMACOPEIA.

The idea of establishing an international pharmacopeia, which shall be an authority in all civilized countries of the world, has practically been abandoned, after having been under consideration by various international congresses for the last forty years. An international pharmacopeia once reached the stage of the manuscript form, and it was this actual practical demonstration which has had more to do with the abandonment of the idea than any other influence. When, after consultation among European physicians, pharmacists, chemists, botanists and experts, the international list of preparations appeared it was almost universally condemned. The French would not accept it because there were too many German and Austrian preparations found in the book and not enough French; the English would not give it serious consideration because medicines which had been used for generations by them were omitted; and Americans scarcely felt enough interest to inquire about it when they found that American preparations had been completely ignored. And so it must ever be, until the great day of universal peace, harmony and goodwill, and when this time is reached probably no pharmacopeia will be needed at all.

An idea has, however, grown out of this long-continued agitation which promises practical results, and this is, for all civilized nations to agree on a uniform strength of what are known as "potent remedies," or as the French term it, "medicaments heroiques," and the International Congress, held in September, 1902, at Brussels, recommended such uniformity. The principal reason for establishing this kind of an international pharmacopeia is to secure uniformity in the dosage of such important medicines as solutions of arsenic and preparations of opium, digitalis, nux vomica, belladonna, etc., so that a patient traveling in any country and having a prescription containing a potent remedy runs little risk of danger on account of the substitution of Fowler's solution made by either a Swiss, German or English pharmacist for the one originally prescribed. For instance, if arsenical preparations were made throughout the world of 1 per cent. strength, all danger from this source would be removed.

It can not be hoped that the new United States Pharmacopeia will please everybody. No pharmacopeia in the world was ever published which was universally accepted by all of the affected interests. Anyone can be convinced of this fact who chooses to consult medical and pharmaceutic literature bearing on the pharmacopeias of the various countries. This is particularly the case with regard to admissions and expurgations. One physician or pharmacist sees in the book some drug or preparations which he has never used and possibly never heard of. Another looks through its pages and does not find his favorite remedy; but it must be remembered that the title of the book is "The Pharmacopeia of the United States of America," and a drug which may not be used in one section is largely used in some other. And again, some preparation which may have considerable local use finds no favor outside of a circumscribed locality, and it would be impossible to think of loading the Pharmacopeia with preparations which have merely a circumscribed use.

Neither can a pharmacopeia be expected to contain all of the new remedies which are exploited by the various manufacturing firms throughout the world. This ever-changing, yet never-to-be-suppressed condition imposes on the revision committee a most difficult task of selection. It can only recognize the newer remedies which have stood the test of sufficient time to demonstrate their value, and of late years the "embarras de richesses" has been so pronounced, and one good new remedy has been so rapidly supplanted by something better (if the advertisements of the manufacturers are credited), that the task of the committee has been greatly increased. Nevertheless, it is believed that the new Pharmacopeia, when it appears, will be abreast of the times and be recognized as fully worthy to stand with any of its predecessors, and contain between its covers a list of medicinal substances with descriptions, tests and formulas for preparing the same, which will be recognized throughout the length and breadth of the land as authoritative.

Music for Insane.—The "Medical Times" says that the authorities of Manhattan Asylum, Ward's Island, are making systematic experiments with the music cure, and have treated a dozen cases of melancholia, giving them concerts an hour long every afternoon with the harp, violin and piano. They report, after a month's trial, that improvement is shown, and that patients suffering from acute mania and hallucinations show more mental alertness and cheerfulness, and that one patient has been assisted almost to recovery by the violin alone.

CASE OF FUNNEL PELVIS WITH CESAREAN SECTION.

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HISTORY.

On May 4, 1900, in my service at the Chicago Lying-in Hospital, I saw the patient, aged 19, in her first confinement. She had been in labor twenty-four hours, the membranes had ruptured and dilatation was complete. The unengaged head presented, mobile above the inlet in L. O. A., and the woman was nearly exhausted by her long labor. The external measurements of the pelvis were small and the conjugata diagonalis could not be obtained. The outlet seemed contracted, but an estimation of the size of the child's head did not apparently preclude its passage and, with the usual preparations and precautions, a combined external and internal version was done. The anterior foot was seized and brought down and the extraction followed directly. No trouble was experienced until the head reached the inlet and refused to enter; under the combined use of pressure from above (on abdomen), the Walcher position and the Smellie-Veit method of delivery, the head slipped through the inlet, passed rapidly and without difficulty through the excavation to the bony outlet, where its progress was stopped. In spite of our utmost efforts the attempts to complete the delivery failed. The child was asphyxiated, craniotomy was done through the roof of the mouth and the mutilated head passed the contracted outlet with some difficulty.

In October, 1901, she reappeared, pregnant for the second time, but with no knowledge of the date of conception. She did not remember when her periods were interrupted, nor when she first felt life.

From examination it seemed probable that labor would occur about Feb. 1, 1902, and, appreciating the difficulties which the case presented, her own and her husband's consent was secured for the performance of any operation which would most nearly promise a living child.

Labor began at 2 a. m., February 16, and 8 a. m. she went to Wesley Hospital and was immediately prepared for cesarean section. No internal examination was made. The operation began three hours later, with the courteous assistance of Dr. Watkins and the resident hospital staff. Through the usual median celiotomy incision the uterus was delivered, the blood supply manually compressed and a median longitudinal incision made in the uterus, through which the child was easily extracted by the anterior foot. Contraction of the uterus was secured by massage and hot applications and the placenta was delivered. The opening in the uterus was closed by through-and-through sutures of chromicized catgut. After direct measurement of the inlet the abdominal wall was closed.

The thoroughly mature male child was cared for by Dr. Farrell and cried lustily. The head was well ossified and nonconfigurable; a small caput was found over the left eye. The child weighed 3,400 grms. (7½ lbs.) and gave the following measurements: Length, 52 cm.; bitem., 7.5 cm.; bipar., 9.75 cm; occ-front, 12.5 cm.; occ-mental, 13.75 cm.; subocc.-breg., 10.0 cm.; occ-front-circum., 37.0 cm.; subocc. greg. circum., 33.0 cm.

The involution progressed rather slowly and at the time of the removal of the sutures the uterus was found to be adherent to the abdominal wall throughout the entire line of the wound, resulting in an involution which took place laterally, but hardly at all longitudinally—the uterus being long and narrow in form and extending to the umbilicus.

The convalescence was interrupted by a slight pleuritis, but at the end of the fourth week she left the hospital with her babe in excellent condition. Examination about three months later showed the condition practically unchanged.

IDENTIFICATION.

The measurements in this case are very interesting as showing a pure type of the "funnel pelvis" (masculine

or infantile pelvis), by which is meant a pelvis with normal or only slightly contracted inlet and high lateral walls which converge strongly downward to a markedly contracted outlet. In the identification of this pelvis it is necessary to exclude certain anomalous pelves wherein the contracted outlet exists only in association with characteristic deformity of the vertebral column, such as kyphosis and spondylolisthesis, as well as those cases of uniform generally contracted pelves wherein there occurs a slight increase of contraction toward the outlet.

The absence of vertebral deformity excludes the first two, and the measurements are so characteristic of the funnel type that the diagnosis can not be confused with the uniform generally contracted pelvis.

The patient is 158 cm. high, with large, full and mature breasts, noticeably slight in figure with narrow hips and strongly converging genitocrural folds. The physiologic lumbar lordosis is diminished, no kyphosis, no rostration of symphysis, iliac venters rather straight and no evidence of early rachitis.

External measurements with tape and pelvimeter give sp., 19.0 cm.; crests, 22.0 cm.; troch., 26.0 cm.; Baudelocque, 19.0 cm.; circumference, 77.5 cm.; left oblique, 19.5 cm.; right oblique, 20.5 cm.; post spines, 8.5 cm. (average 7.5); and on same plane with sacrum. The sacrum is 16.0 long (average 10.3) and very narrow. Tip of coccyx to lig. arcuatum 7.0 cm.; tip of sacrum to lig. arcuatum 9.7 cm. outside, or allowing 1.0 cm. for thickness of sacrum 8.7 cm. inside (Klien's average 12.5, Garfunkel's average 12.3 cm.). The distance from tuberosity to tuberosity measured by the Breisky or Chantreuil methods and the Ayers pelvimeter was 8.5 cm., there being no practical difference in the result from either method.

The tip of the sacrum is easily accessible by the vagina and the coccyx projects acutely into outlet without ankylosis. The pubic arch is narrow, the symphysis high, the ischiatic spines also project markedly into the outlet. The linea innominata appear to be almost parallel, and the attempt to measure the conj. diag. never succeeded, as the promontory was apparently pushed upward and backward and was inaccessible to examining finger.

The inlet measurements were made directly before closing the abdomen and gave c.v. 11 cm. and transverse of 13.0 cm. Thus the inlet is as large as the average and the outlet is contracted in both diameters.

CLASSIFICATION.

Klien, who has made an exhaustive study of this pelvic deformity, classifies the varieties as follows:

1. Funnel pelvis with normal or only slightly diminished conjugate of strait in which—
   - A. Distance between the two tuberosities is only relatively short, but distance from tuberosities to sacrum is so small that both together make labor impossible.
   - B. Distance between the two tuberosities is absolutely so small that the head can not pass.
2. Funnel pelvis with conj. of pelvic strait absolutely too short for head to pass unreduced—
   - A. Without shortening of transverse diameter of outlet.
   - B. With contraction of transverse diameter of outlet.

The very great importance of the pelvis strait is here well emphasized. Contraction in the sagittal diameter may be so great that the unreduced head can not possibly pass, even though the tuberosities are far apart—on the contrary, the antero-posterior diameter of strait may be normal, or relatively so, but the contraction of the distance between the tuberosities is so great that this point assumes the position and importance of the pubic arch, the occiput stems against it and the head is forced so far back that labor is impossible.

In the study of 439 labors Klien makes the following deductions, which I quote in brief:

Where the pelvis is otherwise normal and the distance between the tuberosities is less than 9.5 cm., a mature child will give trouble during labor whenever the presentation is pelvic or shoulder.

For unreduced heads in vertex position the boundary line for serious but not insuperable obstruction is found when the distance between tuberosities is 9.8 cm., other pelvic measurements normal.

The conjugate of the pelvic strait is absolutely too small to permit the passage of the mature unreduced child when it is under 9.0 cm.

Hence, in classifying our pelvis according to Klien's system we find that the conjugate of the strait being less than 9.0 (8.7 cm.) and the marked transverse contraction of the outlet being associated therewith, it should be placed in group 2 B., which corresponds to the uniform generally contracted funnel pelvis of Schauta. According to Klien it is impossible for a mature unreduced head to pass this outlet.

ETIOLOGY.

Very little can be said concerning the etiology of this pelvic anomaly. Schauta believes it results from an original abnormal formation (abnormal height of small pelvis), whereby the promontory is placed high and pushed back, and under the influence of the body weight the shape is brought about in a manner similar to the kyphotic pelvis.

The altered direction of the burden explains the further changes in the reciprocal positions of the pelvic bones which unite for a common purpose.

While unable to add to this unsatisfactory explanation, I would like to emphasize the fact that the significant length of the sacrum and the abnormal height of the lateral pelvic walls must, in a normal convergence of the same, produce a definite contraction of the outlet as compared with the pelvis of normal height.

In support of the theory which minimizes the influence of the body weight, Fehling (confirmed by Thompson) shows that transverse expansion of the brim is present even at the third month of intrauterine life, and that the "long oval" form supposed to be normal in the fetus and newborn is a rare and pathologic—hence the name "infantile" as applied to the funnel pelvis is a misnomer. He concludes: (1) that the transverse expansion depends on the original formation and appears early, hence its production by the body weight is superfluous; (2) that sexual differences are generally present from the fourth month intrauterine, and are perfectly distinct at birth. These facts support the theory that the funnel pelvis is a primary developmental anomaly, and also if so much importance could be attributed to the unusual distribution of the body weight, a kyphosis might result therefrom, and the evident relationship between the kyphotic and the funnel pelvis could be explained, certainly in some instances, along the lines suggested by W. A. Freund in his paper on the pelekogenous origin of vertebral deformity.

FREQUENCY.

It is almost impossible to secure a definite idea of the frequency of this deformity. In Breisky's clinic at Prague, where more than usual attention is given to the contraction of the outlet, there were found 122 funnel pelves of all kinds among 2,070 contracted pelves, or

5.9 per cent. of the total collection as quoted by Schauta. Klien quotes Munch 17.8 per cent. of contracted pelves, Frankenhauser 13 per cent.

Both Schauta and Klien agree that these statistics are in no sense reliable, since no routine measurement of pelvic outlet is undertaken, and when performed a great variety of opinion exists as to what constitutes "funnel pelvis," and what degree of contraction shall determine. Prickards quotes 3,000 labors at Würtzburg, with 252 contracted, but no "funnel pelvis" is mentioned. Ludwig Savor among 50,621 labors reports four cases. Williams (Johns Hopkins) 1,000 labors with no funnel pelvis. Dobbin (Johns Hopkins) one of masculine type in 350 pelves. Fleischmann 2,700 labors with 24 cases of funnel pelvis, which subsequent writers agree must be of slight degree. Schroeder says: "This is a very rare form of pelvic deformity, and even more rare is contraction to a serious degree." Ahlfield gives 8 cases of all kinds in 3,000 labors at Marburg. Olshausen in discussion says: "Very rare, one always thinks of kyphosis."

Klien states that pelves which conform to No. 2 B of his classification, namely, with an absolutely contracted sagittal diam. associated with contraction of transverse diam. of outlet, are extremely rare, and he gives only four cases which have been reported up to 1896—one being his own, and the writer has been unable to find another, diagnosed and reported in literature up to the date of the present case, which produced an insuperable obstacle to labor by the natural passage.

CLINICAL COURSE.

It can not be supposed that these deformities occur without producing a pronounced effect on the clinical course of pregnancy and labor. Where the inlet is not markedly contracted the pregnancy will not differ from other cases, and where definite contraction exists the babe will be carried high, but the principal difficulty will occur when labor begins, for contraction of pelvic outlet is more serious than contraction of the same degree at inlet.

In mild degrees of contraction where spontaneous labor is possible the second stage will be prolonged and serious lacerations are probable. Difficulties in rotation will be noticed because the form of the pelvic outlet prevents normal rotation. Pain weakness from the low position of the child in the lower uterine segment with its scanty musculature is also probable, especially in primaparæ. It is in cases of serious contraction of the outlet, however, that most difficulties arise.

As the case is not usually diagnosed until the first labor is well on nearly every variety of obstetric emergency and operation is met. The conditions are worst when the child is mature with an after-coming head.

In Ahlfield's 8 cases are found, 2 forceps operations, 1 perforation, 1 spontaneous premature labor, 2 artificial induction of premature labor, 2 labor stool. Greuser, craniotomy at outlet. Brummerstadt 2 cases, one stillborn, one saved with difficulty and mother died 36 hours later. Landau, 2 cases craniotomy. Jewett 1 case symphysiotomy. Newman 1 case symphysiotomy, mother died, child lived. Winterberg 1 case symphysiotomy, both lived. Klien reports:

CASE 1.—Tub., 7.6 cm.; ant. post., 12 cm.; forceps after long tedious labor. Second stage, nine and one-half hours, laceration cervix, pressure necrosis in vagina; recovery. The head was easily configurable in this case.

CASE 2.—Tub., 8 cm.; ant. post., 12.25 cm.; head four hours visible at outlet; forceps; good result.

CASE 3.—Tub., 7.6 cm.; ant. post., 12 cm.; version and ext.; good results.

These cases, quoted in brief, serve to show the difficulties associated with labor in this variety of contracted pelvis. In all of Klien's cases the contraction was transverse only, antero-posterior diameter normal, which accounts for his results. Where the head is small and easily configurable, and this I regard as most important, the results are moderately satisfactory, especially if the space between the tuberosities and the sacrum is large enough to permit the passage of the head, but a very slight anomaly, such as a small protrusion of the ischiatic spines will disturb the entire mechanism and possibly cause death of mother or child, or both.

Another feature of this pelvis which has an important bearing on the severity of the labor, is the height of the lateral walls and the length and straitness of the sacrum.

Undoubtedly the long converging walls which are characteristic of the true "funnel pelvis" are the frequent cause of errors in rotation and position, which seriously complicate a condition already sufficiently grave.

PROGNOSIS.

Prognosis in general is not favorable in these cases, but the result depends on the degree and variety of contraction, and especially on the operation, which latter in turn depends on an accurate appreciation of the size and shape of the pelvis.

If left to Nature the soft parts experience deep crushing injuries, which in some cases expose the pubic rami besides producing fistulæ from the long compression. The extreme distention of the lower uterine segment may lead to uterine rupture. For the child the danger of asphyxia is greater than in other deformities, owing to the earlier escape from the uterine body. We find also the characteristic pressure marks appear on skull of babe and even fractures occur. The prognosis is most favorable where the fetal head is small and easily configurable and the outlet is contracted in one diameter only.

POSSIBLE OPERATIONS.

The measurements of the child's head in the present case demonstrate conclusively that its passage unreduced through the pelvis was impossible, and even if the head had been easily configurable, instead of hard and well ossified, I believe the birth of a living child could not be expected. These conditions could only result in a long, hard labor, with operative termination and doubtless a dead child.

In view of the strong desire of the parents for a living child the various operative procedures were carefully considered. The induction of premature labor naturally came first in point of time, and with the modern aids to the preservation of the child after birth, presented many hopeful features, but aside from the uncertainty of the date of conception there was continually in mind the imperfections and uncertainties of our means of determining the size of the fetal head, either by instrumental or external palpation and the necessity was urgent to determine not alone the size, but especially the form and consistency of the head, and as this could only be approximate at best, the success of the operation becomes highly problematical, even in cases where the time of conception is approximately known.

Besides this, the fetal mortality for many reasons is large, and shows, according to Krönig, a variation from 55 per cent. in the pelves showing the most contraction to 25 per cent. in pelves with c.v. between 9.5 to 10.5

cm. Consideration must be given also to the fact that premature children show a large mortality during the first year of life (from 19.5 per cent. to 28 per cent., as given by different authors), which directly or indirectly may be attributed to the prematurity, and the maternal mortality in these cases is from 1 to 2.2 per cent.[1]

Hence the chances seemed slight that a living child could be promised by this method, and it was rejected. The choice then rested between symphysiotomy and conservative cesarean section at term. The statistics give approximately the same mortality for each (2 to 10 per cent.), and a fetal mortality ranging from 15 to 25 per cent. in symphysiotomy as compared with 2.5 per cent to 5 per cent. in cesarean section, and in accordance with these conditions the cesarean operation was decided on as giving a maximum chance for a living child and a maximum of safety for the mother.

FUTURE PREGNANCIES.

The termination of this pregnancy has been in every sense satisfactory, but as the patient is only 21 years old and has the greater part of her sexual life before her, we must consider her future pregnancies. The moral question of sterilizing a woman by removal of the tubes or a portion thereof after the cesarean operation is still unsettled, but there seems to be no justification for depriving the woman of her ability to conceive and bear children when the mortality by the various operative procedures is so low. Both the cesarean operation and ventrofixation seem to lessen the chances of subsequent conception. But we can not rely on sterility, and it is probable that pregnancy will again occur. The adhesion of the uterus to the abdominal wall amounts to a ventrofixation and must be considered in reference to subsequent pregnancies. Abel reports several cases of abdominal adhesions after cesarean section where the operation was done two or three times on the same patient.

If the adhesions remain broad and firm (1/3 of the cases) the course of the pregnancy will be materially interfered with and expansion can occur only in breadth —the uterus can not rise toward the sternum—the axis will not correspond with the pelvic axis and malpresentations will occur, and abortion takes place in about 8 per cent. of the cases.

If pregnancy goes to term the risk of sepsis in subsequent operations will be diminished where the adhesions permit opening into the uterus *in situ* without entering the peritoneal cavity (Spencer). Usually these adhesions produce some stretching and tearing pains during subsequent menstruation, but inside of a year, or during the first half of the next pregnancy they disappear or remain only as long loose strings which cause no difficulty.

A review of the patient's first pregnancy and labor, in the light of our present knowledge, shows that the version and extraction was unwise; indeed, when the head is non-configurable version must not be attempted, for Klien's report demonstrates the aftercoming, non-configurable head is impossible of delivery in such a pelvis. Head-first labors give a possibility of delivery when the child is premature and head soft, and under such conditions version is permissible.

Either craniotomy or cesarean section should have been done, with a preference for the first, since she had been repeatedly examined, but there seems to be no valid reason against terminating all subsequent pregnancies in this patient by cesarean section.

1. Heyman: Arch. f. Gyn., Bd. lix, Heft. 2, 1899.

BIBLIOGRAPHY.

Abel: Arch. of Gyn., 1900.
Ahlfield: Lehrb. d. Geb.
Bauer: Ztsch. f. Geb. u. Gyn., 1898.
Champneys: Tr. Lond. Obs. Soc., vol. xxv.
Dobbin: Am. Jour. Obst., vol. xxxvi.
Dickinson: Am. Jour. Obst., 1901.
Fleischmann: Ztsch. f. Heilk., 1888.
Freund, W. A.: Gynakol. Klinik.
Fehling: Arch. f. Gyn., 1876.
Heyman: Arch. f. Gyn., 1899, Bd. lix, Heft. 2.
Klien: Volkman's Samuel Klin. Vortrag, 1896.
Krönig: Therap. beim. Engen Becken.
Prickards: Inaug. Diss., Mainz, 1897.
Reynolds: Tr. Am. Gyn. Soc., 1890.
Schroeder: Lehrb. d. Geb.
Schauta: Muller Handbuch.
Veit: Ztschr. f. Geb. u. Gyn., Bd. ix, 1883.
Williams: Obstetrics, vol. i.

THEORIES OF THE TRANSMISSION OF HEREDITARY SYPHILIS.*

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The fact of the heredity of syphilis was known to Paracelsus, who, in the year 1560, asserted that this disease was due to some unknown virus circulating in the blood, which also infests the semen and during conception is transmitted with it to the fetus.

Still, at the present time, we are not able to recognize positive laws as to the methods and conditions of the transmission of hereditary syphilis, and must fall back on theories based entirely on empirical conclusions. Until the specific micro-organism of syphilis is demonstrated scientifically and beyond doubt, these theories will never be more than probabilities—the more so as we find ourselves heavily handicapped in the attempt to make use of our clinical material. The protean nature of syphilis, where we might say that exceptions form the rule, the necessity to observe cases over periods of many years and finally our dependence on the history of at least three persons involved—an evidence which is none too free from objections as to its trustworthiness—all these factors make it difficult to arrive at satisfactory results.

We do know that syphilis is transmitted from the parents to the fetus. The questions which arise next are the following: 1. Which of the parents may be responsible for the transmission of the disease? 2. What are the ways and means by which the virus is transmitted? 3. What are the circumstances most favorable for the hereditary propagation of the disease?

The possibilities of a communication of the virus to the fetus are threefold: the generative organisms, the sperm cell or the ovum, or both, may contain the contagious substance a priori; the fetus may become infected through the maternal blood circulation; and finally, all these factors may act in combination. To determine how much is real in these different influences, to which the transmission of syphilis is attributed, we must take the problem to pieces and examine one after the other separately.

INFLUENCE OF THE FATHER.

The point whether syphilis can be conveyed to the child by the father alone, without infection of the mother, is a subject of much controversy. We shall now try to establish such a possibility on the basis of logical conclusions. To prove this supposition we must in the first place be able to exclude any participation of the mother, and for this reason be absolutely certain of her health. The mere absence of specific manifestations

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are not sufficient evidence of this. Cases have been reported by Lewis, Barthelemy and others where women, known to be syphilitic, remained entirely free from syphilis for a time up to fourteen years and yet continually gave birth to diseased children. A more confirmatory proof of absence of syphilis in the mother is likely to be found in such cases, where perfectly healthy children were born, when the syphilitic father underwent treatment, to be followed by diseased children, when treatment was suspended. The objections which have been brought forward against these records were that frequently treatment of the syphilitic father was not successful in procuring a healthy progeny unless the mother herself, who never exhibited any symptoms of the disease, has undergone specific treatment; but this seeming contradiction may be explained by the assumption that the mother was already infected either directly or through the placentar circulation by one of her first offsprings (the so-called *chock en retour*), and then participated in the transmission.

An undeniable evidence of the absence of syphilis in the mother during conception and pregnancy would be the fact that she became infected with syphilis after the birth of her syphilitic child; it is known that people once syphilized become, with very few exceptions, immune against a new infection. But according to the law, which was first observed and recorded by Colles, these cases are extremely rare, and even then not distinguishable from reinfections and therefore impracticable for our argument. Baumes[1] and Colles[2] have first brought out the fact that mothers of syphilitic children are immune against syphilis; innumerable observations have shown that mothers nurse their syphilitic children with impunity, while wet nurses acquire chancres of the nipple, followed by specific manifestations. Caspary[3] went even further and inoculated a woman who had aborted a syphilitic fetus, but had always been free of any syphilitic symptoms, with the secretion of an active syphilitic lesion; the result was absolutely negative—the woman remained healthy. This immunity may be acquired in two ways: the mother may have been infected directly by her husband and the manifestations of syphilis were so mild that they were overlooked entirely, or the virus has been conveyed to her secondarily from the fetus through the placentar circulation. Finger[4] claims that the placenta acts as a perfect filter and wholly prevents the passage of solid particles of matter, but that the products of syphilitic infection are ptomains or toxins, which are soluble and may traverse in the interchange of placentar serum. This process does not necessarily render the mother syphilitic, but confers on her an immunity, an effect which would be the same as that of vaccination for immunization against smallpox.

Still another way to prove the spermatic transmission is by analogous evidence. Pasteur[5] discovered that the germs of the disease of silkworms, called "pebrin," pass into the spermatic cells of the worm, which still retain the power of germination, but simultaneously transmit the infection to the offspring. Similar experiments by Baumgarten have shown that the inoculation of chicken eggs with tubercle bacilli has resulted in the production of chickens with evidences of tuberculosis. All these observations prove that the infectious material may be communicated to the normal ovum by external agencies, including the semen, and result in a diseased product. We are certainly entitled to the belief that the same principle applies to the human organism.

While the majority of syphilographers shares this opinion, others, as Cullerier, Charrier, Parry and Notta, assert that the transmission of syphilis from the father to the child is impossible without participation of the mother. In evidence of this, they published many cases of recently acquired syphilis of the father where neither the wife nor children suffered from the disease. These records are not free of objections from unbiased investigators. Beside, if their view is correct, it would do away with the most probable explanation of immunization of the mother; that is, through the medium of the fetus. We would then have to ascribe the immunity of the mother in every case to a direct infection from her husband, and assume at the same time that this acquired syphilis had always run such an extraordinary mild course as to be overlooked entirely, a theory which does not appear very plausible.

The pathologic changes in the placenta may in time clear up some of the mooted points. Fränkel finds different conditions in the placenta, according to whether the disease has been conveyed by the father alone, the mother being healthy, or when the mother also is syphilitic. In the first case the placenta is affected along with the fetus, displaying a cellular granulation growth, complicated with obliteration of the blood vessels of the villi and marked thickening of the epithelium; in the second case not only the maternal and fetal parts of the placenta are involved, but the endometrium may also show a gummatous condition.

INFLUENCE OF THE MOTHER.

There is no doubt whatever that syphilis is transmitted from the mother to the child, while the father is and remains healthy. A woman suffering from syphilis may affect the fetus in two different ways, either directly through the vitiated ovum or by furnishing it during gestation with elements of nutrition imbued with the specific diathesis. Both these influences, or either one alone, may act if she had syphilis at the moment of conception. That the ovum alone may be responsible for the transmission is probable from the analogical action of the paternal procreative cell since we are justified to assume the same faculties for the female generative organism. If the mother contracted syphilis subsequently to fecundation, the transmission of the disease to the fetus could have been caused only through the placentar circulation. In all these cases the health of the father must be assured as proven by a later infection. An infection of the child during the passage through the birthways, which belongs in the class of acquired syphilis, can easily be excluded if pathologic lesions characteristic of hereditary syphilis are found.

The final conclusions as to the influence of either of the parents on the child could then be formulated from the above arguments as follows: 1. The father's sperm cell may contain the syphilitic virus and convey it to the child without participation of the mother. 2. The maternal generative cell may contain the virus and result directly in a diseased fetus. 3. The placentar circulation permits the passage of the infectious matter either way from mother to child, and vice versa. 4. Several or all of these factors may combine, and the more of them that are present the less probable the escape of the child. 5. The probabilities of the transmission of syphilis through the mother are greater because of more ways of possible influence on the fetus.

The next question to be considered is, what are the pre-existing circumstances and conditions most favorable for the transmission of hereditary syphilis? From

our clinical experience we may positively assert that the probability of the appearance of hereditary syphilis is reversely proportionate, 1, to the time of infection of the parents, and 2, to the length and thoroughness of specific treatment. The nearer to the time of fecundation the infection of either parent took place the more certain is the disease to become evident in the child and the more malignant will be the type of its manifestations. Some writers claim that this applies mainly to the man in whom the syphilis, after a period of years, enters a state of latency and loses its contagiousness. It is no rare occurrence, however, they say, for a woman to give birth to a syphilitic child ten years and later after her infection; they explain this by reasoning that an ovum infected with the syphilitic germ may be retained in the ovaries for a long time before it is expelled and fertilized, while the spermatic cells are eliminated constantly, and with them the specific virus as long as it is present. The other influential factor is the effect of treatment. A judicious, methodical and sufficiently long-continued treatment of the syphilitic parent will, in many cases, result in a favorable fate for the offspring.

Another interesting question is: At what period of pregnancy may a woman become syphilitic without communicating the disease to the child? Ricord's belief that infection of the mother within the last three months of pregnancy does not affect the child, was generally accepted until cases were reported where syphilis, acquired by the mother as late as the eighth month of pregnancy, was transmitted to the child.

Can hereditary syphilis be transmitted to the second generation? To prove this we must have positive evidence, 1, of acquired syphilis of either, or of both, of the grandparents; 2, of hereditary syphilis in either of the parents with the absolute proof that no new syphilitic infection of the parents took place, and 3, of hereditary syphilis in the grandchildren. The difficulties attached to the task of acquiring a trustworthy history of a disease running through three generations, make the reliability of the reported cases very uncertain and do not, therefore, permit any correct deductions.

In conclusion I would like to add a few practical points which, in connection with this subject, may be of interest.

While the energetical treatment of syphilis will help a great deal to reduce the probability of its hereditary transmission, still the more important task of the physician is to prevent marriage at a time where the disease is still active and prone to be propagated. According to Kassowitz,[6] about 30 per cent. of syphilitic children die *in utero*, another 30 per cent. die within the first six months after birth, while the balance is still more reduced by diseases developed on a tainted system. As long as there is no absolute proof of a positive cure of syphilis, a thorough, systematic treatment of at least two years' duration and an absence of specific manifestations during three consecutive years should be made the condition *sine qua non* for the consummation of marriage.

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BIBLIOGRAPHY.

1. Baumès: Précis theorique et pratique de mal. ven., vol. I, 1840, p. 180.
2. Colles: Pract. Observ. on the Vener. Dis., London, 1837, p. 285.
3. Caspary: Vierteljahr. für Derm. und Syph., 1875, p. 473.
4. Finger: Archiv für Derm. und Syph., 1890.
5. Pasteur: Monatshefte für pract. Derm., vol xx, 1895.
6. Kassowitz: Die Vererbung der Syphilis, Vienna, 1876.

Rashes appear in various diseases as follows: Typhoid, seventh to ninth day; typhus, fourth or fifth; smallpox and measles, third or fourth; scarlatina, first or second.—"Med. Summary."

THE TREATMENT OF LEPROSY.*

A. H. OHMANN-DUMESNIL, M.D.

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Leprosy, that awe-inspiring scourge of the human race, stands to-day an unsolved problem awaiting a proper solution. It is the great riddle of the Sphinx which some unknown Œdipus may perhaps solve. From time immemorial it has engaged the attention of the most learned sages, philosophers and men of science, and it stands to-day as mysterious and as awful as it did at the beginning. It is the black and lowering cloud over humanity which even we, with our boasted scientific attainments, have not yet been able to dispel, and all our puny efforts have resulted in the same failures that the misdirected labors of our forebears did. It is the one problem before which every one must bow and acknowledge *non possum*. It is the most stubborn, as well as the most difficult with which to grapple, of the great triad, the two other members of which are tuberculosis and syphilis.

The great similarity to one another which these processes present has led to the idea wrongfully entertained by some that one was merely a different stage of the other; as, for instance, that leprosy is the quarternary stage of syphilis, when we know it to be a fact that the two diseases have no such close relationship; and so for tuberculosis. What we do know is, that all three are essentially chronic in character and insidious in their beginning. They are also essentially destructive in character and they all attack every tissue of the human organism. We further know that leprosy and tuberculosis present specific bacteria of the bacillus form, and the best investigators are of the opinion that syphilis also is characterized by a specific bacterium. It is also held to be most probable that the bacteria are not the direct causes of the diseases, but rather their toxins, a most reasonable view in consideration of the fact that serum therapy, based on this manner of considering the subject, has proven so successful.

There is another point of more than ordinary interest in this whole question, in view of the fact that it is the one of highest interest to the victim of any one of these diseases, which is, what is the proper treatment and is there a cure? In the case of syphilis we are positively assured by some that there is an absolute cure, whereas others deny it. A third class tells us that the disease cures itself spontaneously. It is certainly a difficult matter to decide such a question, especially when our methods for a final determination are so defective. So far as tuberculosis is concerned, we have given to us positive assurances that it can not only be cured, but that it has been in numerous instances. And yet, even here, some doubting investigators have more or less maliciously demonstrated some remains of undoubted tuberculous nature in certain of the reputed cured cases.

Quite different is it in the case of leprosy. A cure has not yet been claimed by a leprologist who knows the disease thoroughly. Marked improvements under certain forms of treatment have been noted, and no one has denied these; but a cure has only been suggested as possible under the treatment which has been employed. But of this I will speak later on in the course of this paper. What I purpose noting is the treatment of the disease, and this will, very naturally, give rise to a few remarks on subjects connected with it. I do not purpose

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speaking of the cure of leprosy, for this has not yet been discovered. The methods of study have been improved and we are daily making some steps which bring us nearer to the wished-for solution of this great problem. We can not say that it is impossible; we can only acknowledge that our methods are impotent.

The problem which confronts us is to devise, discover or formulate a successful method for the cure of leprosy. For its complete eradication perfect isolation is sufficient; for its cure we must have something equally as certain.

It is not proposed here to speak of all the methods of treatment of leprosy, for their name is legion, and the majority of them have fallen into ignominious desuetude. They have been tried and found wanting and have fallen into a merited oblivion. Many of these methods were based on superstition, the craft of magic, white or black, religious recitations, incantations, amulets, prayers, ex-votos, and the entire arsenal of the belief in the miraculous and outlandish. These are still practiced in districts remote from all the semblance of even the beginnings of civilization. And we have no doubt that certain creeds have followers to-day who believe or pretend to believe that they cure even leprosy by their prayers, which are really blasphemies in the eyes of those whose faith is pure and true. With all these we have nothing to do. What will be considered are medical measures and the success which has so far attended their exhibition; and of these but a few will be chosen and such as have proven of some value.

It may not be inopportune, before entering into a consideration of the different methods of treatment, to pass in short review some of the views which have been held in regard to the manner in which the disease is acquired. There are those who have invoked telluric influences, especially dampness, and yet the disease is seen to occur in places of such varying meteorologic conditions that this can not be considered as entering into the question any more than a hot or a cold climate. For leprosy is observed to occur in the torrid heat of India and in the glacial zone of Norway as an endemic disease. The theory that it occurs principally in those who live on the sea coast and, incidentally, chiefly in fish eaters, as has been advanced by Mr. Hutchinson, is not supported by facts, as is aptly proven by its occurrence in those who have never been near the sea and those who have never eaten fish, either from fresh or from salt waters. Then we have a cause which has been invoked, which has met much opposition and which has caused, as it is yet causing, much acrimonious discussion. Of course, you will immediately recognize this cause as contagion. The contagionists advance some very good arguments in support of their views, and the non-contagionists are not slow to adduce facts to prove their position. The most active among the latter is, beyond all doubt, Zambaco, who has made it the object of his life to endeavor to prove the non-contagiousness of leprosy. He makes a very strong plea for this view in his "Voyages parmi les lépreux," a small book full of very interesting matter, rendered doubly so from the fact that it is from the pen of a capable leprologist. That this question of contagion is anything but easy of solution is evidenced by the fact that the lepra conference held in Berlin did not pronounce itself definitely on the subject. Under these circumstances it has been considered the safest course to follow by both sides party to this discussion to agree on isolation as the best measure to pursue until something more definite is known concerning the nature of leprosy.

Another theory to account for the increase in leprosy, and it is one which has a number of adherents, is the one which makes the disease a hereditary one. This manner of thinking is one of the offshoots of the non-contagionists. They contend that, while lepers are, as a rule, sterile, they propagate to a sufficient extent to furnish a continually increasing number of lepers and where the sexes are not separated the intermarriage or concubinage of lepers with non-leprous individuals inevitably results in the production of offspring which are lepers. And, as a further proof of heredity, is adduced the fact that the disease will skip a generation to appear in the succeeding one. It is this question of heredity which has led so many eminent leprologists to advocate a strict system of segregation, which, if carried out properly, is certainly destined to ultimately cause the disappearance of leprosy were it not for one factor which should be taken into consideration. This important factor is inoculation. No one denies the inoculability of leprosy, but all are not yet agreed on the method in which it occurs. The introduction of the bacillus of Hansen directly into the human tissues or through an intermediate host function has been proven to be possible. These bacteria have been found in the soil on which homes of lepers were built, and subsequently destroyed by fire for the purpose of destroying all possible causes of future infection. Mr. Impey of South Africa has successfully inoculated leprosy in some natives so that we may look on the inoculability of leprosy as a proven fact.

Now come certain students of leprosy who contend that the disease can not be inoculated except under certain conditions. They further contend that these conditions must be present, and, as a matter of fact, are usually present; all of which is yet a matter of *sub judice*. Many of these also sustain the thesis that there exists no such thing as cases of leprosy acquired through contagion, and that all are inoculated. Some very harassing discussions owe their origin to the proper interpretation of the terms contagion and inoculation, but this is neither the time nor the place to indulge in hair-splitting distinctions. That which concerns us more is a consideration of the conditions which are regarded as necessary to the acquiring of leprosy. In the first place, and regarded as the most important, is the existence of a predilection to the disease. This is considered a racial condition and accounts for the rapid dissemination and increase of leprosy among certain peoples or races. Of course, this is merely a theory which, unfortunately for its upholders, is not supported by facts. A short inquiry into its weak points may not be uninteresting. In this theory of predilection it has been found necessary to call in certain racial characteristics. Thus the Chinese, Japanese, Hindus and Sandwich Islanders were considered sufficient at first. Then it became necessary to add Norwegians and the Indians of the different North American countries, which very naturally led to the inclusion of the natives of the West Indies. This gradual accretion has finally resulted in the inclusion of all countries with the exception of nearly all the European states and of the United States. And yet we find that the natives of some of these become lepers, albeit purely Caucasian. The argument that these have traveled in countries where leprosy is endemic and lepers are common and thus acquired the disease by contagion will not hold. For cases are noted and I have seen some in which the disease was sporadic; in which the affected individuals not only never traveled where leprosy was ever observed, but had never seen or had any dealings

with any one who might have a predilection for leprosy. It is true that such cases are few in number, but there are enough of them on record to prove a stumbling block in the road of those who spin fine theories out of very weak material. But it would certainly prove a wearisome task to take into consideration all the theories which have been advanced and examine into the validity of the arguments which are made to hold the various views which are announced. Enough has been said to give an idea of one of the many problems set before leprologists and of the difficulties which surrounds the task of arriving at a solution of any one of them. With these few preliminary remarks to introduce the subject I will now enter into a consideration, necessarily short, of the question of the treatment of leprosy; and, in this, I do not propose to give a complete and detailed account of all those which have been proposed and tried, but rather pass in review a few which have offered the most encouragement and seemed to be the most rational in their application as well as the best in the results obtained by means of them.

In speaking of the treatment of leprosy the first agent to which we naturally feel our attention called is chaulmoogra oil. It is perhaps the oldest one which has been employed in the treatment of leprosy, and even to-day it enjoys a reputation far superior to all others on account of the very good effects which have followed its use. Originally used in India, if we are to believe those who have written of it, it is still regarded there as the only medicinal agent of any worth in this disease. And it is not only in India, but in other countries as well that it enjoys this exalted reputation. Those who have had an opportunity of observing its action and its effects in a cold, deliberative manner, are also ready to accord to it the praise which it certainly deserves. But to attribute to it the power of curing which has been claimed for it none who has observed it is willing to concede. It is universally admitted as a fact that it will bring about improvement in a case of leprosy, but that it will cure is conceded by none. And it is right here that the function of the leprologist is called into active requisition. In a case of reputed cure he should examine it with all due regard and not jump at conclusions because external appearances of a general character are such as to lead to a mistaken idea that no leprosy exists. Every small symptom and sign must be carefully noted and the complete absence of all must be looked on as deceptive, for it must never be forgotten that while chaulmoogra oil improves much, it has never yet cured leprosy. And right here let me warn you in regard to the administration of this remedy. It is fairly well borne when given by the stomach, but the time inevitably arrives when the nausea and other untoward symptoms which this method produces force it to be administered hypodermically. This should be done at the very beginning, and the oil should be applied externally. In this manner much better results may be obtained, although the hope of a final cure by this means may be considered *nil*. We are well acquainted with the claims which have been made for this agent, but none has ever been substantiated in a manner that would prove satisfactory to one who has made this disease a study. In fact, the result has usually been the reverse. Not very long since a Chinese leper, who was quarantined on the grounds of the St. Louis Smallpox Hospital, was declared cured by the medical superintendent. Among those called to examine into the alleged cure was the reader, who unhesitatingly declared that the Chinaman was not cured of his leprosy, and he was ordered back to his isolation. He still presented some indubitable marks of the disease, and, in point of fact, was not cured. This opinion was shared in by the others who examined him.

It has ever been thus with cases declared cured by oil of chaulmoogra, and doubtless will be. One point to which attention should be called in connection with this agent is that in reputed cured cases there is always present the liability of a relapse into a form which will be more severe than the original one for which it was administered. This is an evil of more than ordinary importance, and it is on this account that those acquainted with the fact have hesitated about using this medication. Promises can not be safely made beyond a certain point, and a severe relapse is certainly very difficult to explain. The enthusiasm of one who has seen but a portion of the results is not sufficient to guarantee the hope of a final cure, and the experience of him who has not devoted years to the study of the subject and who has not had the opportunities of following any form of treatment can not be taken either as a positive proof or as a reasonable encouragement to adopt a method which has proven itself fallacious on so many occasions. Do not depend on oil of chaulmoogra even for a temporary improvement; it is better to resort to other methods.

You will no doubt find many advocates of this oil, and if you do, inquire into their experience and ask them for how many years did reputed cured cases remain cured. Everything in this matter must be carried on in a judicial manner, and the *ipse dixit* of no one can be accepted. Let not the wish be father of the thought, but consider only those things which are proven. We can not afford to jump at conclusions to-day; we can not even afford to accept what are but factitious proofs. The absence, supposed or absolute, of Hansen's bacillus is not always a positive proof of the absence of leprosy. Besides, in such a case, what proof is afforded that this self-same bacillus is not lurking in some tissue beyond the reach of the investigator? Who is it that will be enabled to examine every organ and every tissue of a living subject and who will take the pains to do so with a dead one? As you can plainly see, the honest investigator is seriously handicapped in an honest endeavor to determine whether a case of leprosy has been or has not been cured, no matter what treatment has been used. But, to briefly summarize the expressed opinions on the use of chaulmoogra oil in the treatment of leprosy, it may be stated that all investigators as well as leprologists are of the opinion that it has a rapid effect in the way of improving any case. Also, that it is best administered hypodermically; and, furthermore, that its discontinuance is attended by relapses of a more or less severe character. Furthermore, all are agreed that it can not be continued very long by the mouth. These are certainly not very encouraging conclusions, and would lead very few to the adoption of this agent in a country where the propriety of complete segregation is under consideration. In fact, it would lead to the use of other means which would encourage the hope of ultimately successfully obtaining a cure. This is the objective point of all leprologists, and will explain why all frown down any method which can not afford anything better than relief.

This treatment by means of chaulmoogra is purely empirical, and not based on any rational cause therefor; it was simply found to be good to produce an improvement in the symptoms of leprosy, and this led to its adoption in the treatment of the disease. And, up to the present, but little improvement has been made in its ad-

ministration beyond that of employing the hypodermic method in lieu of that by the mouth. Naturally the former method has resulted in the advantage of its being possible to continue the remedy for a longer period of time without any untoward symptoms; but no better final effects have been observed. This is certainly demonstrative of the fact that the method does not repose on a rational therapeutic base, but is rather in the nature of a haphazard measure, in which a partial effect only is taken, and very illogically, as an indication of what the permanent result should be.

Another method to which I desire to allude is that which was inaugurated by P. G. Unna of Hamburg, and which was based on his pathologic findings. As is well known to all who are present, he claimed that lepra bacilla are aerobic and need oxygen in order to continue to exist. It matters but little whether these bacteria be distributed along the walls of blood vessels and lymphatic channels or whether they be located in the substance of cells. The theory which he promulgated was, in substance, to use such agents as are greedy for oxygen and by their aid deprive the bacteria of that on which they depend for existence. These agents he found in that class he has so well described—the reducing agents. He expected great things from ichthyol, and his results have been what I have found them to be: improving but not curing. I will not burden you with the details of his method and its modification. It is sufficient to state that it has never produced more than an improvement. It has never cured. That in which we are more particularly interested is the question of a treatment which will cure. The therapeutics of lepra is improving daily, and we can not rest satisfied with the dictum that it can not be cured, any more than we can be with the unproven assertions that certain methods which are prematurely lauded have effected such a result. It is, indeed, a burning question in view of the fact that so many cases of this disease exist and that it is apparently increasing the number of its victims. The only manner of successfully combating it is to cure, not to attempt to repress it. Attempts at repression are but too frequently futile and amount to nothing more than a *pis aller*. Segregation and complete isolation will dispose of the cases found and recognized, but can hardly prevent the development of new ones, which experience will lead to conceal themselves and thus encourage the formation of new foci from which lepra will be disseminated until it again assumes large proportions.

It may perhaps be best to merely mention some alleged cures for lepra which, unfortunately, have not yet been proven to be such. One which has been announced with a great flourish of trumpets by its originator is the treatment by means of the Carrasquilla serum. As has occurred in the introduction of all new methods in so-called incurable diseases, wonderful improvements were observed, and even apparent cures. As in all these cases the inventors were filled with the enthusiasm produced by the delight of having at least discovered a possible cure; and, as has been the fate of all, the ultimate results have been failures. Critical experiments made by competent observers have resulted in unfavorable verdicts, and the alleged wonderful cure has hardly lived long enough to be even a nine days' wonder. It has ever been thus with all these alleged cures for lepra. So many have the disappointments been that many who began with high hopes have become disheartened and merely plod along the beaten tracks of the past, which, at all events, offer some little modicum of satisfaction.

The latest treatment which it has been attempted to make a vogue is that by serpent's poison or the so-called antivenene method. Accidentally discovered and repeated later on with design, it was hailed with delight on account of the great improvement which was observed to follow its use. Great expectations followed the results which were obtained, but, like all its predecessors, it fell by the wayside and it failed to accomplish the much desired effect, that of producing a cure. Theories and hypotheses, numerous enough and sufficiently varied, were advanced to prove theoretically that it was the Hermetic stone of leprology. And it, too, failed. It were a loss of time and a trespass on your patience to recount all the will-o'-the-wisps of leprology. It would be sad to give naught but a catalogue of failures, and yet these are the monuments which line the highway along which leprologists have been traveling for many, many years. The fairy edifice of cure is as far away as ever and seems as difficult to reach as the foot of a rainbow.

The solution of the problem of the true treatment of leprosy is the one which now confronts us. It is one surrounded by difficulties as well as one fraught with the highest importance. It is the true solution of the whole lepra question which, unfortunately, has aroused but comparatively little attention from the governments of the civilized world. The number of those afflicted with lepra, the cost of maintaining those who are unable to earn a living and similar economic considerations are the only questions which have aroused any interest. Not enough attention has been given to the treatment of this scourge of humanity, and yet this is the paramount issue at the present time. This treatment must, of a necessity, be curative. After all has been said there can be no doubt whatever that the cure of lepra is the paramount issue. Leprologists, who are such in the true sense of the term, do not concern themselves much about the palliative treatment of the disease. This is certainly sufficiently well known not to require any further investigations. The methods now known and tried are sufficient for this purpose. A cure for leprosy has not yet been discovered, nor is it my purpose to announce one. The conditions which are offered in the problem are such that certain lines of investigation and experiment must necessarily be followed. The method in general which holds out the best promises of success is, beyond doubt, that based on serotherapy. This is, comparatively, still in its infancy, and yet it holds out many hopes for an extended usefulness. Roux and Behring have demonstrated the possibilities in the method by the results which have been obtained by the use of antitoxin. Among the conditions necessary to the production of a serum possessing specific properties is the production of a pure culture of the specific bacterium. In the next place, an animal who is immune to the particular disease for which a serum is to be obtained must be found. In the next place, this animal must be of a hardy nature and of a sound constitution when inoculated. Finally, the inoculations must be limited in number, as the serum becomes deteriorated in quality if the animal be inoculated and bled too many times or at intervals which are not sufficiently far apart.

A question of some importance which naturally suggests itself is, what animal would be the best to furnish the serum? In this question are involved many conditions; but, so far as present knowledge on the matter extends, there is little doubt that the male goat and the mule are the animals best adapted to the purpose, both on account of immunity and because their physique is refractory to nearly all the diseases of the capric and

equine families. Of course, we have not yet arrived at that point when anything of a definite nature can be positively stated. A most vital corollary to the whole question is the one involved in the question as to whether, conceding a case has been effected, the cured individual is subject to or capable of being inoculated a second time by leprosy. In other words, does he then become immune to the disease and, if so, is the immunity a permanent one? Of course, this opens up anew the great question of immunity which will not be touched here.

The writer is fully aware that the entire subject of the treatment of leprosy has but been barely outlined in this paper, but it has been offered in the hope that some one will take it up and elaborate it completely and that it may call some little attention to the questions of a cure for leprosy. Now that the American possessions include a number of islands in which leprosy is endemic and cases exist in large numbers, it is certainly the duty of the American medical profession to devote more attention to this disease and to search for a cure with more diligence than it has done heretofore. Those physicians who are located in these possessions have ample opportunities to pursue their studies and make experiments such as are certainly not offered in this country. We perhaps do not hope in vain when we express the one that the opportunities offered will, in time, produce fruit of the highest value to all humanity.

DISCUSSION WILL APPEAR LATER.

ANATOMIC AND PHYSIOLOGIC CORRESPONDENCES OF CHILD AND ADULT.*

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I have made an endeavor in this paper to indicate a few salient points of correspondence between child and adult along anatomic and physiologic lines. The task is difficult because: (1) The similarity is so great between child and adult that it is practically impossible to draw a definite dividing-line between the two. (2) There are certain generally accepted adult qualities, such as judgment, discretion, physical and mental precosity inherent in some individuals universally recognized as children. (3) Some persons, adults to all external appearances and known as such among their fellows, have the mental and physical traits of childhood and youth.

This paper will deal in a brief way with: 1. Correspondences in temperature. 2. Correspondences in respiration. 3. Correspondences in circulation. 4. Correspondences in articulations. 5. Correspondences in accessory sinuses of the nose. 6. Correspondences in fetal vestiges. 7. Correspondences in emissary veins. 8. Correspondences in cerebral sensorial areas. 9. Correspondences in cerebral association centers (Flesehig).

I am indebted to J. S. Brown, M.D., of Chicago, for the following brief comparison of the infant and adult as regards temperature, respiration circulation and joint structures with clinical observations.

While in many minor points the infant and adult are nearly identical in their anatomy and physiology, it is essential to note certain differences: (*a*) For the benefit that may result to the infant from non-interference; (*b*) for the peace of mind which the attending physician may thereby secure.

* Read at the Fifty-fourth Annual Session of the American Medical Association, in the Section on Diseases of Children, and approved for publication by the Executive Committee: Drs. Edwin Rosenthal, S. W. Kelley and H. M. McClanahan.

TEMPERATURE.

The temperature in early infancy does not exhibit that stability seen in later life. Immediately after birth it is about the same as or perhaps a little higher than that of the mother. Under the influence of a bath and radiation from the skin it falls in the first few hours after birth from 1 to 3 F. Very soon it rises to 98.5 or 99 F., which figures practically persist during the succeeding months or even years. However, we must note that the infant will for a given cause show much greater variation in temperature than the adult, a circumstance readily accounted for when we consider the relatively greater radiating surface, the dilatability of the superficial capillaries, the thinness of their investments and the undeveloped state of the heat-regulating centers in children. It is a continuous high temperature, rather than a single abrupt elevation which lends significance to diseases of infancy.

RESPIRATION.

According to Uffelmann the rapidity of respiration during sleep is as follows:

At birth	35 per minute.
End of first year	27 per minute.
At two years	25 per minute.
At six years	22 per minute.
At twelve years	20 per minute.

To this I would append Kirk's statement:

The number of respirations in a healthy adult person usually ranges from 14 to 18 per minute.

Holt, commenting on Uffelmann's statement, says:

During waking hours this rate may be very materially increased, and from comparatively slight disturbance may be nearly twice as rapid. The type of respiration in infants is diaphragmatic, and it continues to be chiefly so until after the seventh year, when the costal element becomes more and more prominent. The rhythm of respiration is easily disturbed. In very young infants the regular rhythm is seen only in sleep. Regular rhythmical respiration is not fully established before the end of the second year. At times the infant's respiration may be carried on for a few moments almost entirely by one lung, and, indeed, it may also, in a brief time, change from superficial to deep breathing.

Cotton says:

It has been demonstrated that young infants inhale more oxygen and exhale more carbon dioxid relatively than adults. The ratio of respiration to pulse in very young infants is so inconstant that it is of little value.

CIRCULATION.

Kirk's table on the force and frequency of the heart's action gives the following averages:

Before birth	150 per minute.
Just after birth	140 to 130 per minute.
During first year	130 to 115 per minute.
During second year	115 to 100 per minute.
During third year	100 to 90 per minute.
About seventh year	90 to 85 per minute.
About fourteenth year	85 to 80 per minute.
In adult age	80 to 70 per minute.
In old age	70 to 60 per minute.
In decrepitude	75 to 65 per minute.

Some persons preserve their youthful rate of heart action throughout life, but on the authority of Babcock not without pathologic causes, which, indeed, may be difficult or even impossible to discover.

On the authority of Cabot the following is the cellular constituency of the blood: At birth both the red and white corpuscles are considerably in excess of those in adult life. During the first day the red and white corpuscles increase markedly in number. At the end of the seventh day both the red and white corpuscles have been reduced; the red corpuscles are something near the adult figures, and the white to about 15,000 per mm.

JOINT STRUCTURES.

In the articulation of the bones of the cranial vault sutures are absent, and in their place are fibrous septa continuous internally with the dura mater and externally with the pericranium. At the angles of the parietal bones are six fontanelles which gradually become filled by bone. Ankylosis of the sacral and coccygeal elements of the spine may be mentioned, this process in part being continued well on into adult lift. The diaphyseo-epiphyseal line of junction is of great practical interest, since growth in length in long bones takes place here. Separation of epiphysis from diaphysis, a condition difficult to diagnose from other traumatisms, may occur at this line. And, again, much of the pathology of bone tuberculosis is near this line of union. For evident reasons operations in children near the epiphyseal line should be avoided as much as possible.

ACCESSORY SINUSES OF THE NOSE.

The pneumatic bones of man are confined to the head. They contain, after childhood years, air cavities, variously called cells, sinuses and antra. The naming is founded rather on differences in size than on structural peculiarities, for they are similar in location, development, nutrition, function and liability to local and constitutional disorders. They are accessible from without, and on this fact depends doubtless the frequency of invasion by disease as well as the fine technic of their medical and surgical treatment.

The accessory sinuses are evaginations of the nose, hence their lining epithelial cells are of ectodermic origin. They partake of the nature of the nose because evaginated structures in general partake of the nature of the primitive cavity from which the evagination occurs.

The accessory sinuses occur in the frontal, ethmoidal, sphenoidal and maxillary bones. They are variable in size in different races, in people of the same race, and even in the same person; those of the two sides may differ in magnitude. In short, the sinuses admit of general, not of specific, limitations. Their openings into the nose are relatively larger in the young than in adults, and like other evagination routes, may occur doubly.

The sinuses are tardy in appearing and with no demonstrable reason develop *pari passu* with the generative organs. The completion of the sinuses is heralded by adult qualities of voice. At birth the frontal sinus is absent, the maxillary sinus is a shallow groove on the outer wall of the nose, the ethmoidal cells are shallow depressions and the sphenoidal bone has no traces of air cells.

The pterygoid plexus of veins is situated in the region of the pterygoid muscles and is composed of veins corresponding in name and number to the branches of the internal maxillary artery. This plexus is proportionately larger in children than in adults, and communicates with the cavernous sinus through the vein of Vesalius.

The empiric practice of counter irritation behind the ear, as well as in other regions of the scalp, finds anatomic justification in the emissary system.

In view of the large number and the large size of the emissary veins in children, diligence should be exercised on the part of both nurse and physician in preserving immaculate toilet of the scalp, since septic thrombi gain access to the dural sinuses, as previously pointed out.

Adults are more liable than children to infection of the dural sinus system by septic thrombi from the deep parts of the face. Children, on the other hand, are more liable than adults to epistaxis of cerebral origin, a fact attributable to greater frailty of emissary veins and greater constancy of a vein in the foramen cecum.

FETAL VESTIGES.

A number of structures in the embryo survive as vestiges in both child and adult. When their obliteration is complete, as often occurs, the very obliterating process itself is not infrequently a menace to the child's welfare. When the obliterating process is incomplete the survival of the structure may assume medical or surgical importance.

For our purpose let us define an anatomic vestige as a structure which, by virtue of loss of function, has become dispossessed of its specific characters as an anatomic entity. When a structure does not lose its specific qualities then, as a survival, it may acquire pathologic importance. The greater number of fetal vestiges belong to the digestive, circulatory and generative systems.

The embryonal yolk sac is attached to the ventral surface of the alimentary canal by a constricted neck—the vitelline duct. The somatopleure closes in around this duct, leaving the umbilical opening. The vitelline duct usually disappears. In some cases, however, it persists, being attached to the ileum from one to three feet distant from the ileo-cecal junction. When its existence coincides with an unclosed umbilical opening, a fecal fistula results. The persistent duct is called Meckel's diverticulum, and is usually from one to seven inches in length.

Meckel's diverticulum, in adults and children alike, may appear as a very small thread-like structure and still remain pervious. In abdominal operations necessitating invasion of this diminutive variety of Meckel's diverticulum, ligation should always precede its division, in order to avoid the possible escape into the peritoneal cavity of gas or other noxious intestinal contents.

The allantois supplants the yolk sac as an organ of respiration and nutrition. Its stalk passes through the umbilical opening. With the appearance of the placenta the allantois loses its primitive function, certain parts becoming vestigial while other portions assume entirely new functions.

The allantoic vessels become the umbilical vessels and are concerned in the placental aëration of the blood, forming integral parts of the umbilical cord. The intra-embryonal part of the allantois forms the urachus, urinary bladder, urethra of the female, cloaca in part, and the prostatic urethra of the male.

The urachus is usually impervious, still obliteration may fail to occur; when its obliteration occurs coincidentally with an unclosed umbilical opening a urinary fistula results.

The vessels of the placenta—the hypogastric arteries and the umbilical vein—pass through the umbilical opening and obtain in child and adult as subsequent lifelong disturbing factors. The urachus and remnants of the hypogastric arteries assist in delimiting the inguinal fossæ, hence they are causative factors in the determination of inguinal hernia.

The umbilical opening left by the closing in of the somatopleure transmits: 1. The vitelline duct, whose persistent Meckel's diverticulum may result in a fecal fistula. 2. The stalk of the allantois, whose persistent urachus may form a urinary fistula. 3. The hypogastric arteries, whose fibrous remnants are causative factors in inguinal hernia. 4. The umbilical vein, whose cord-like remnant forms the round ligament of the liver. Umbilical hernia may occur in child and adult.

The foramen ovale—the causative factor in "blue baby"—is an unclosed part of the inter-auricular septum. It persists until birth or shortly thereafter. Its ultimate closure may be a matter of weeks or months, or it may persist throughout life. In 200 bodies I found 20 instances in which it was possible to pass a broom straw through the unclosed foramen ovale, but in only three of this number was the opening large enough to be of antemortem importance.

The thyroid body is formed by a median and two lateral diverticula. The lateral diverticula arise from the sides of the fourth inner branchial cleft; the median diverticulum arises from the ventral wall of the pharynx, and extends downward in relation with the ventral surface of the trachea, forming the isthmus of the thyroid body. The proximal part of the course of this diverticulum lies in the conjunctional area of the tuberculum impar and the two symmetrical segments of the tongue. The foramen cecum on the dorsum of the tongue represents the persistent part of the median diverticulum. That portion of the diverticulum intervening between the foramen cecum and the isthmus of the thyroid is called the thyroglossal duct, and may persist as accessory thyroid glands and lingual duct.

EMISSARY VEINS.

The emissary veins are more constant in childhood than in adult life. They communicate intracranially with the dural sinuses, extracranially with deep and superficial veins of the face, scalp and neck. They have no valves, hence the direction of the current of blood in them at any given time depends on the relative character of intracranial and extracranial pressure.

The emissary veins pass through foramina in the bones of the cranium. In childhood, these foramina are constant; in adult life, however, some tend to disappear, and their veins become obliterated.

The emissary veins in erysipelas and suppurative diseases of the antrum of Highmore may transmit septic thrombi to the sinuses of the dura mater, in childhood as well as in adults. Epistaxis of cerebral origin frequently occurs in childhood and is due to rupture of an emissary vein passing from the superior longitudinal sinus of the dura mater through the foramen cecum to terminate in the venous capillaries of the mucous membrane of the nose.

The mastoid emissary vein is proportionately larger in the child than in the adult and its severance may cause troublesome and even dangerous hemorrhage in surgical operations in this locality.

The angular vein of the face communicates at the inner part of the orbit with the ophthalmic vein, and this latter opens into the cavernous sinus. This is a favorite route pursued by septic thrombi to the cavernous sinus in erysipelas about the root of the nose. The anatomic fact just mentioned regarding the angular vein accounts for the large size of this latter in intense cerebral congestion.

At birth the brain is relatively of large size. Its general form closely approximates that of the adult. The dura is tough, and its sinuses are in free communication with veins of the face, neck and scalp by means of rather numerous emissary veins. The pia mater is very delicate, a physical condition favoring traumatic cerebral hemorrhage at birth. The frontal lobe and the cerebellum are small. The sensorial areas are large, while the association centers of Fleschig are probably potential only.

SENSORIAL AREAS.

The sensorial areas are four in number. Each corresponds to a definite peripheral region of greater or less extent, and thus there is, as it were, a constant picture on the highly sensitized plate of the collective sensorial areas, projected by the terminal end organs of vision, hearing, smell and common sensation.

The retina corresponds to and projects a visual picture on the visual sensorial center in the cuneate lobe. The cochlea corresponds to and projects an auditory picture on the auditory center in the superior temporal convolution. The olfactory filaments correspond to and project an olfactory picture on the olfactory center in the anterior perforated space, trigonum olfactorium, uncus and collosal convolution. The nerve endings in skin, tendon, muscle, joint and viscera correspond to and project a picture on the somaesthetic area of the cortex —the largest and by all means the most important area, for in this all motor nerves originate and all nerves of ordinary sensation end.

According to Fleschig, two-thirds of the cerebral cortex is occupied by what he designates association centers, the remaining one-third being occupied by the sensorial areas previously enumerated. In very early childhood the sensorial areas are everything—the association centers are probably potential existences only. Later, with the dawn of intelligence and reason, the sensorial areas and association centers strive for cerebral supremacy.

The association centers are regarded as the part of the brain in which the higher intellectual functions are carried on, and they occupy considerable parts of the frontal, parietal, temporal and occipital lobes of the cerebrum. These centers are believed to exercise control over the sensorial areas. They are in abundant communication with the sensorial areas by association fibers, and thus receive from all parts of the body impressions which they are supposed to transform into consciousness and give definite form to impulses. The commendable product, then, of the association centers is mature judgment.

The association fibers acquire their sheaths of medulla and become functional only after education and intellectual effort have stimulated the different regions of the cortex to harmonious action. Different forces acting peripherally on retina, cochlea and sentiment surface are thus the stimuli of the sensorial areas. The result of cerebral stimulation, after having been transformed and unified by the association centers, is education. The manufactured product of the association centers, awaiting consignment and shipment, constitutes the visual, auditory, olfactory, muscular and other memories.

It would be illogical to assume that Nature, who delights in diversities, should dispose the sensorial areas and association centers with reference to child brain and adult brain according to a rule to which there could be no exceptions. Rather should there be overlapping or telescoping of the fields of the higher intellectual faculties in the adult brain and its juvenile prototype. In fact, observation would seem to confirm this view, and the investigations of Fleschig seem to point to its rational explanation in anomalous development of association centers.

Adult thought, application, acquisitiveness and mature judgment in a child is precocity. Inclination for childish things, destructive tendencies, extravagent expenditure of energy and resources, incommensurate with physical strength and fortune respectively, on the part of an adult, is evidence of an unbalanced mind. It must be assumed that as soon as all parts of the nervous

system act in harmony—that is, as soon as the association fibers become invested by medullary sheaths—the brain is at its very best and, mechanically speaking, a perfect machine. If now we determine a table of doses of medicinal drugs capable of definite stimulation of sensorial areas, we shall have arrived at the proper dose for the healthiest human organism. Empiric practice has ascertained and recorded this table under the head of minimal doses. Let us also remember the table of adult doses of powerful drugs, and account anatomically for the great difference between infantile and adult toleration of drugs.

Instances are on record where minimal doses produced the most alarming toxic symptoms in adults, and rumor has it the cause of all this was an idiosyncrasy on the part of the patient. We are then driven to the conclusion that along with precocity and unbalanced mind should be recognized idiosyncrasy, a condition in which the adult sensorial centers have retained their pristine purity and responsitivity.

How are we to regard anatomically and physiologically a patient who, as experience shows, reacts only to heroic doses? In the same light in which we regard an engine which, when new, consumed ten tons of coal and two gallons of oil, but which, after twenty years' wear and tear, consumes a hundred tons of coal and twenty gallons of oil in a given time. What is the practical deduction regarding idiosyncrasy? Begin every new case on minimal doses, for who knows which patient may not be idiosyncratic. Herein lies the value of the family physician, for he knows the patient's peculiarities. The physician who has no time to understand the patient by confirming or disproving idiosyncrasy is a dangerous man to society and on a par with one who swears on skeletal evidences to sex, regardless of the scientific findings of the influence of contrary sexuality on the osseous system.

The precocious youth, the man of unbalanced mind, the idiosyncratic patient are victims of developmental processes. The first is not responsible for his scintillating wit, the second is not to be held accountable for his childish actions, the third should not be treated with indifference if he succumbs to a dose of medicine prescribed for his baby.

"When I became a man I put away childish things," were possibly as reliable a definition anatomically for man as jurisprudence can summon for insanity. Manhood can not be said to have begun until there is evidence of judgment, discretion and control of the impulses under trying circumstances; here childhood ceases; here have the association centers of Flechsig obtained a dominating influence over the sensorial areas.

979 Jackson Boulevard.

Clinical Reports.

SUTURE OF THE GREAT SCIATIC NERVE.

REPORT OF A CASE.*

JAMES H. DUNN, M.D.

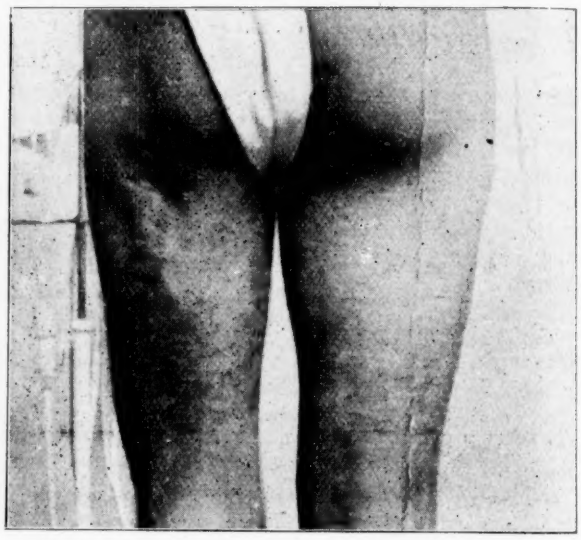
MINNEAPOLIS.

Wounds and suture of the great sciatic nerve are perhaps sufficiently rare to lend some interest to the following case:

J. S., an Irish farmer boy, aged 19, was struck by a scythe in the hands of a younger lad who was swinging the instrument on a level with his own waist. The lads were facing each other and the blade entered the outer side of the patient's left thigh, passed back of the femur, and the point emerged on the inner surface of the thigh just below the crotch. Between the points of entrance and exit the blade slipped under the skin and severed most of the muscles to the bone and divided the great sciatic nerve just below the gluteal fold. In removing the blade it was turned and the wound of entrance was slit downward some two or three inches.

The accident occurred July 18, 1898. Dr. J. B. White of Montgomery, some miles distant, was summoned hastily and found hemorrhage severe, and complete paralysis of motion and sensation in the sciatic distribution. He arrested the bleeding and dressed the leg as skilfully as possible, and on the next day brought him by rail to St. Mary's Hospital, where he arrived in the evening.

On the morning of July 20 we examined the patient together. Despite such antiseptic precautions as it had been possible to carry out at the scene of the accident, the wound was badly infected. After thorough cleansing I cut down on the nerve by the usual incision for stretching the sciatic at this point. (See illustration.) The severed ends were found retracted somewhat more than an inch. The ends were stretched, approximated and sutured by medium and fine catgut, three through-and-through sutures with the former and numerous sutures of the sheath



Scar of operation.

with the latter. Several of the severed muscles were also sutured with catgut, and extensive drainage employed in all three of the wounds. The extremity was dressed and fixed in slight flexion. The wounds had all fully healed by August 20. A superficial slough the size of a dime on the posterior surface of the heel had appeared despite attempts to prevent pressure.

September 1 there had been decided improvement in sensation, possibly some motor improvement, and he was allowed about on crutches.

September 10 a rubber muscle was stretched from the toe of his shoe to a band below the knee, and he was sent to his home in the country. He wore the rubber muscle till the following May, at which time the improvement, both motor and sensory, was sufficient for him to resume his work as a farm laborer without any artificial appliances.

I had no opportunity to watch and record the progress of the case very accurately, but the patient reported by letter from time to time, indicating that some lesser improvement continued up to the end of two years, since which there is no perceptible change. That is to say, the improvement was progressively greater during the first year and tapered off, so to speak, during the second, when it ceased. The early decubitus healed quite promptly and never gave further trouble.

In the summer of 1901, I chanced in his neighborhood and went over to his place to see and examine him. I found him working in the hayfield. On taking off his rather dirty shoe

* Read before the Hennepin County Medical Society, March 3, 1903.

and stocking I found he had a small perforating ulcer of the heel. This had come on during the past few weeks while working hard, and he thought it had been irritated by a wrinkle in the lining of his shoe. I secured a promise from him to visit me after his fall work was done, for a more complete examination than we could make in the field. In December, 1901, about three and one-half years after the accident, he appeared for examination, and Dr. W. A. Jones kindly examined him and made the following record for me: "There is some dulness of sensation in the external saphenous, external plantar and left half of the musculocutaneous, beginning at the ankle-joint region. Sensation above either nominal or slightly hyperasthenic; knee-jerk exaggerated in the left leg. Partial paralysis of the anterior tibial group only."

The right thigh measures 48.5 cm., the left 46.5 cm. The right calf measures 34.5 cm., the left 33.5 cm.

I have recently seen the patient, and his present condition, four and one-half years after the operation, is practically the same as last year, the ulcer has not healed, though a slightly better care of it has kept it at about a standstill. I believe it would heal if he were to lay up and attend to it properly. He has never done so for more than two weeks, during which time it showed improvement. It is a wonder to me that working as he does with dirty stockings and shoes, it has not proven more destructive and malignant.

The conditions for successful nerve suture were not good. The wound was forty-eight hours old, and badly infected. Prolonged drainage was necessary. The result is a perfect restoration of function, excepting decided paresis of anterior tibial group of muscles and consequent loss in extension of the foot, which, however, does not much interfere with his gait. Sensation is nowhere entirely lost, but slightly diminished on outer aspect of the leg, and quite decidedly so on the outer dorsal aspect of the foot. Trophic disturbance is indicated only by the characteristic perforating ulcer on the heel, which is about the size of a dime, very deep, reaching almost to the bone, and very indolent. The secondary factors of traumatism, infection and neglect, have been allowed full sway.

It has been a question in my mind whether it might not have been better to have first drained the wound, stamped out the infection and have made a secondary nerve suture, but I think not. The result is, I imagine, about an average good one. In the larger nerves some loss of function, especially motor or trophic, is, I believe, the rule.

A CASE OF RODENT ULCER.

J. C. O'DAY, M.D.
OIL CITY, PA.

The following case of ulcus rodens I believe is worth reporting, because of the extensive destruction to the face and the compatibility of a fair degree of health extending over a period of ten years. The history of the case is substantially as follows:

The patient is a male, aged 56, married, father of five children living and well. The family history is negative. The personal history is negative, except that prior to the onset of ulcer patient drank considerably.

Sixteen years ago a small pimple appeared over the right eye, becoming pustular and painful. The patient consulted a physician, who opened it with a needle, allowing the pus to escape. The margin now began to break down until the eyelid was threatened. Every effort of the physician to arrest the destructive character of the disease not only proved fruitless but seemed to aggravate it.

The patient, now thoroughly alarmed, sought the advice of several eminent surgeons of New York and Philadelphia, but in spite of every effort the disease progressed steadily, attacking skin, muscle, bone, eyes, nerves and all structures of the face. This continued six years, when the destructive tendency ceased. For the past ten years it has remained in about the same condition.

Examination shows the complete loss of the superior maxillæ, including all the soft structures up to the horizontal portion of the frontal bone. The tongue and remnant of the upper lip remain. In eating, he has his food minced and made into gruel with milk. This, with the aid of a spoon, he throws back on the base of the tongue, and it is readily swallowed. Words of the full vowel sound he utters distinctly, but with a peculiar horn-like pitch. He writes readily with slate and pencil, and in this way makes his wants known.

DR. GARCELON'S NINETIETH BIRTHDAY.

ITS CELEBRATION A PLEASANT FEATURE OF THE NEW ORLEANS SESSION.

Dr. Alonzo Garcelon, who is perhaps the oldest member of the Association, celebrated his ninetieth birthday at New Orleans May 6. Through the suggestion of Dr. L. Duncan Bulkley of New York, which was warmly seconded by others, Dr. Garcelon's birthday was not allowed to pass without a suitable memento from his many friends who were gathered at New Orleans. Over one hundred members each contributed one dollar, with which a loving cup was purchased. Subscriptions were limited to a dollar, so as to give a large number an opportunity to take part.

The presentation was a surprise to Dr. Garcelon; he had been informed that a few friends would come in, but he was not prepared for the surprise that awaited him. The loving cup was a beautiful present, on which was inscribed the following:

TO ALONZO GARCELON, M.D., ON HIS NINETIETH BIRTHDAY. IN LOVING REMEMBRANCE FROM SOME OF HIS FRIENDS IN THE AMERICAN MEDICAL ASSOCIATION, NEW ORLEANS, 1903.

Speeches were made by Drs. Bulkley, Lawrence, Bonifield, Gordon, Holton, Carstens, Montgomery, Marcy and others. They spoke of their great love for Dr. Garcelon and their pleasure in having him at the Association session. They held up Dr. Garcelon as a model medical practitioner, and likened him to a tall, native pine tree, standing sturdily as a monarch of the forest.

Dr. Garcelon, in his response, spoke very appreciatively of the favor shown him, and added a few words about the difference in medical conditions between his early days and the present.

After this enjoyable presentation a second took place. A handsome gold-headed cane was given to the former member of that body by the Board of Trustees, together with the Secretary and Treasurer of the Association. The inscription on the cane was:

DR. GARCELON. FROM THE MEMBERS OF THE BOARD OF TRUSTEES OF THE A. M. A., MAY 6, 1903.

Dr. T. J. Happel, chairman, made the presentation. He reviewed Dr. Garcelon's long career as a Trustee, and spoke in appreciation of the untiring labors he had performed and the great interest he always took in watching over the affairs of the Association and of THE JOURNAL.

Dr. Garcelon, in accepting the cane, said that with the permission of Providence he hoped he would have the pleasure of greeting the members of the Board of Trustees and of the Association many years more.

This event was a very pleasant feature of the visit to New Orleans for all those who took part. Dr. Garcelon is worthy of these honors and of many more, and the realization of this made the speeches very hearty and lent emphasis to all the eulogies.

Population Statistics in Germany.—The official figures for 1901 have just been published and are quoted in the "Allg. Med. Ct.-Ztg." for April 25. The proportion of births was 42.31 per 1,000 inhabitants in 1875, and has since been gradually declining to 36.79 in 1900, but in 1901 shows a slight rise to 36.89. The number of illegitimate births is the lowest for thirty years, 8.57, and in the manufacturing district of Westphalia only 2.60. The number of stillborn infants is also the lowest for many years, 3.13. During 1901 there were born in all 2,097,838, the proportion of girls to boys being 100 to 106.1. There were 26,127 twin births, 241 triplets and one case of quadruplets.

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THE NEW ORLEANS SESSION.

The session of the American Medical Association just closed has been a success in every respect. The New Orleans arrangements were almost perfect, the general hospitality and feeling was most admirable, and the social functions passed off with delight to all. The Section meetings were above the average in the quality of the papers and the interest in the discussions; the business meetings disposed of matters which have long been a trouble to the profession. The President's Address and the orations have already been placed before our readers and need no comment. The attendance was far beyond expectations, and made it one of the largest sessions that the Association has ever held. The general spirit throughout was excellent, and we may say, altogether, that perhaps there has been no session that will leave pleasanter memories with those who attended it.

THE NECESSITY FOR REORGANIZATION OF OUR LARGE HOSPITAL SERVICES.

There is a well-known popular distrust of public hospitals—a distrust not always intelligent, certainly, and not always deserved. On the other hand, there are reasons for the failures of the great public hospitals which are not understood by the laity, though only too clear to the profession. From time to time, at more or less regular intervals, attention has been called through the public press to various irregularities, if not abuses, in the conduct of the public hospitals of our large cities. One point which is occasionally emphasized is the insubordination of internes, who have been especially charged with performing major operations, etc., in violation of long-established rules. According to the rules of the majority of such hospitals all surgical work, except minor emergency operations, must be performed, not by internes, but by a member of the staff, and internes are prohibited from administering anesthetics except under the supervision of some member of the staff.

This is excellent, but the truth is that too many of the public hospitals of this country suffer from a general lack of medical organization, and however sternly abuses may be dealt with, they will persist or recur so long as the present loose methods of hospital organization are continued. Many of these hospitals have at their head lay wardens or governors, who can not be expected to exercise authority in medical matters over attending men or internes. The visiting staff usually consists of a large number of physicians, appointed by the favor of the board of trustees, or of the president of the board. It consists in part of the most eminent physicians in town, who bestow on the hospital but little personal presence, and for the rest, of men who have eagerly sought these appointments for the prestige they could gain and whose presence in the wards is of doubtful value to the patients, and certainly fails to inspire the internes with respect. As this great unsalaried staff can not be held to strict service rules, the care of the patients actually devolves on the internes, who are brilliant young fellows, usually selected by severe competitive examination, but who too frequently cherish the delusion that they learn best by experimentation, untrammeled by the directions or interference of their elders.

Instead of welcoming the opportunity for receiving instruction afforded by the visits of attending men, the average interne resents their advice as an infringement of his rights. Superficially such hospitals are often spoken of as giving the best training to the interne. In fact, from a sternly scientific point of view, and quite without regard to the mere humanitarian considerations, this is a fallacy. No one would take a young man just graduated from a technical school and put him in charge of a great electrical manufacturing plant. Yet we take young men, fresh from a medical school, whose practical experience has been almost *nil,* and place them in sole charge of hospitals in which, the twenty-four hours round, desperate accident cases demand instant action, obscure ailments require the utmost diagnostic skill and operations involving life and death must be constantly performed. Does any one seriously believe that the young physicians, who in fact do a large part of this work alone and unguided, learn so much as they would under intelligent supervision? This state of affairs is known and deplored by the profession. The general public, however, which furnishes the material for these hospitals, does not know it, but is dazzled by the distinguished names at the head of the list of "attending men," and fancies them actually in charge.

Our large public hospitals need to be reorganized. They require a competent, specially trained physician as superintendent, whose appointment and tenure depend only on his efficiency and good faith, a small salaried, permanent medical and surgical staff, whose members can be held to responsible service and who will thus give the internes the instruction and discipline which is their due, and will secure to the patients the best possible care. The hospital services should be organized into definite and well-defined departments, each with its head, an adequate corps of assistants and residents.

In the majority of our large hospitals the term of service of an interne is nearly two years. By shortening

this term to one year twice as many persons would be granted the opportunities for clinical experience that is offered to internes and which the fierce competition shows is valued most highly, and rightly so. The appointment of more permanent resident physicians and surgeons, as is now done in the best hospitals at home and abroad, would more than compensate for the more frequent change in the internes, and would give us properly trained men for the higher positions in the hospital services.

The time is unquestionably ripe for a vital change in many public hospitals if they are to fulfill their function as training ground for young physicians, and if they are to retain the confidence of laity and profession, which is their due. Nor should the task be very difficult. If the members of the staff are allowed their proper privilege of bedside clinics and are assured a reasonable tenure of office there will be no difficulty in securing the faithful service of the best men in the profession for the wards of our public hospitals.

FLIES AND TYPHOID FEVER.

The paper we published[1] a few weeks ago on "The Fly as a Carrier of Typhoid" acquires special emphasis in the light of two researches that have since been published in European journals. Levy and Kayser[2] have just reported some interesting observations on the duration of life of typhoid bacilli in stools that had not been disinfected, but had been thrown into a privy vault in the ordinary household routine. From such material they recovered a micro-organism which responded to all the usual cultural tests for the typhoid bacillus and agglutinated macroscopically with typhoid serum in a dilution of 1/5000. The feature that lends particular interest to this observation is that the full history of the infectious material was secured. In this instance the feces of a typhoid patient were first thrown, without disinfection, into a cemented vault and remained there during five winter months. The contents of the vault were then spread on the soil of a garden, and after the material had lain in this situation for fifteen days at winter temperature, the investigators succeeded in cultivating from the garden soil true typhoid bacilli. The authors call special attention to the fact, shown by this observation, that the contents of privy vaults containing typhoid bacilli may continue dangerous even after the lapse of months.

On the experimental side of the same question, particular interest attaches to an article by Ficker from the Hygienic Institute of the University of Berlin.[3] This investigator, after noting the fact that he had previously isolated typhoid bacilli from the bodies of flies caught in a house where eight cases of typhoid had occurred, proceeds to describe some interesting experiments made to determine the length of life of typhoid bacilli in or on bodies of flies that had been fed with infectious material. As a result of these experiments it appears that flies fed with typhoid bacilli are able to convey the microbes to objects with which they may come in contact for as long as twenty-three days after the feeding. Ficker's attempts to determine the region of the body in which the bacilli were located did not lead to altogether conclusive results, although he succeeded in isolating bacilli from the head, from the wings and from the legs in five days, and from the intestine nine days after feeding.

The independent investigations of these several authors will certainly tend to increase the suspicion with which the wanderings of the house fly are coming to be regarded. The protracted vitality of the typhoid bacillus in privy vaults, the long period during which the fly itself is capable of disseminating infection and the rapidly accumulating epidemiologic evidence all point to the importance of a source of infection, the very existence of which has until lately been insufficiently recognized.

1. Feb. 28, 1903, p. 576.
2. Centralbl. f. Bakt., Originale 1, March 20, 1903, p. 489.
3. Arch. f. Hyg., 1903, xlvi, p. 274.

LIVER SPOTS AND THEIR SIGNIFICANCE.

The popular name for certain yellowish or brownish yellow patches variously located in the skin has long been liver spots. Old school physicians have, as a rule, agreed with their patients as regards the designation of liver spots, though the newer school of physicians have been very much inclined to doubt the possibility of any connection between the liver and these localized pigmentations, and some have even deemed such connection entirely out of the question. In recent years much has been learned of their true character. When limited to the eyelids the patches of chamois or wash-leather appearance so familiar to the practitioner, have been called xanthelasmata. Other yellowish patches variously distributed over the body usually associated with some increase of the fibrous tissue of the corium, with some fatty degeneration of the overgrowth, and therefore deserving to have a hint of their tumorous character in their name, have been called xanthomata.

Under their new and ambitious names these patches seem to have lost much of their interest for the general practitioner, but undeservedly so, for they are a constitutional rather than a purely dermatic condition. A recent publication of the New Sydenham Society by Jonathan Hutchinson,[1] bears the significant title "Xanthelasma and Xanthoma, with Special Reference to Their Association with Functional and Organic Diseases of the Liver." Dr. Hutchinson has shown by the investigation of a number of cases that the coloring matter in the yellow fatty patches, known as xanthomata, is undoubtedly of liver origin. Not infrequently the spots are associated with jaundice or with some functional liver disturbance. Occasionally crystalline accumulations occur just over them in the skin, due to the precipitation of cholestearin which may persist for some time, or be reabsorbed.

1. An atlas of illustrations of clinical medicine, surgery and pathology, compiled for the New Sydenham Society, Fasciculus xv, London, the New Sydenham Society, 1902.

Their occurrence should always lead one to examine carefully the condition of the patient's liver. The individuals who most frequently present "liver spots" are, in Dr. Hutchinson's experience, the so-called bilious subjects in whom functional liver disturbances are usually demonstrable without difficulty. The skin and hepatic conditions are frequently associated with severe headaches and migraine. Generalized xanthoma occurs, especially in diabetic subjects, and would seem to furnish some confirmation of the ideas of those who insist that the liver has a special function with regard to the metabolism of sugar in the system, which function is disturbed in diabetic patients.

Recurring liver disturbance, as Dr. Hutchinson points out, is prone to produce more or less significant changes in the eyelids. Three forms of palpebral skin alterations have been especially noted in this regard: First, a distinct pigmentation, more or less persistent, but prone to temporary increase in those parts of the eyelids now known as xanthelasma positions, that is especially around the inner canthus on the upper or lower lid. Second, the development of grouped comedones in these same positions with tendencies to subsequent pigmentations. Third, patches of yellow fatty deposit which constitute true xanthelasma. The old tradition of liver spots then and the associated etiology and significance are, it would seem, in spite of doubts in the matter, to be accepted and substantiated by twentieth century medicine.

ILLINOIS NURSES' BILL VETOED.

Among the governor's vetoes which have been announced is one by Governor Yates of Illinois, who has vetoed the trained nurses' registration bill; simply, as it appears, on the ground that the examining board was to be appointed from names selected by the Illinois State Medical Society. The governor objects to this as taking from the executive his prerogative, and, we might add, political perquisites. Why otherwise he should object to the assistance of a qualified organization in the selection of persons for a purely professional function is a little difficult to see from our point of view, though probably clear enough from his.

THE GERMAN REVOLT AGAINST CONTRACT PRACTICE.

The evils of contract practice and the extent to which the exploitation of doctors by workingmen's benefit societies has gone in some parts of the world are shown by a recent statement that a general action is going to be taken by the profession in Germany against employment by these sick-fund societies. In Germany, as in Great Britain, these societies have brought the average cost per call down to a ridiculously small amount. In the former country the average compensation per call is said to be only 4 cents. At Gera and Mülhausen the physicians have already refused to act for the societies, and in consequence these associations are obliged to pay the ordinary fees. Feeling is high, and at least one duel has been the result of the condition of affairs. We believe our brethren in Germany are in the right. We do not care to call the thing a strike, for this does not seem to be properly its name, though it has a resemblance to that movement so popular in this country at the present time. In England the same difficulties have been felt for a considerable time, and it will not be surprising if a general action similar to that of the physicians in Germany should be inaugurated there. In either case our confrères will have our best wishes for their success.

THE APPLICATION OF THE BIOLOGIC TEST FOR SPECIES TO BONES.

The above caption may suggest to those who remember the famous Luetgert murder case in Chicago, that it might have been possible to determine whether the boiled and alkali-eaten bones found in the vat were of human or animal origin. Experiments which Schütz[1] has been carrying out go to show that this differentiation could probably not have been made by the serum precipitation test of Wasserman. It is possible to determine the specific identity of bone only when a sufficient amount of albuminous material is attached to it, either in the marrow or in accidentally adhering muscles. For example, one wishes to know if a certain bone belongs to species A. An animal is immunized with the serum of a member of species A; an extract is then made of the bone in question, to get into solution albuminous bodies present in the marrow or adhering muscles. It is rather indifferent whether the material is fresh or dried. The extract is filtered and to the filtrate is added serum from the immunized animal. The occurrence of a precipitate indicates that the bone was from species A; if no precipitate, it was from some species other than A. Obviously bones in which the organic matter has been destroyed would be unsuited to the test. Schütz properly emphasizes the limited medicolegal value of this application of the precipitation test.

TYPHOID ON THE PACIFIC COAST.

The recent epidemic of typhoid at Palo Alto, the site of Leland Stanford, Jr., University, has excited some attention, but fortunately it appears to be associated with a very small mortality. Unlike the Ithaca epidemic it had no connection with the remissness of local authorities as regards water supply, and seems to have been entirely traced to one or two infected dairies. The comparative mildness of the epidemic as opposed to that of Ithaca is noteworthy, and in this connection we would remark on an editorial discussion of the subject in the *Medical Sentinel* for April, which antedated the Palo Alto epidemic. The editor finds from his observation and that of others that, while the disease is most unnecessarily and disgracefully present on the Pacific coast, the general mortality from typhoid is low, especially in Oregon, where his experience allows him to speak most authoritatively. There is a decided difference in this respect from the disease in the eastern states, though east of the Cascade range in the eastern portion of Oregon and Washington territory the condition is not the same. He has seen there several cases approaching the old typical typhoid of the eastern states, and the mortality appears, from such information as he has been able to obtain, distinctly higher than in the western part of the state. It would be especially interesting to know

1. Deutsche Med. Wochenschrift, 1903, p. 62.

whether this same contrast prevails between eastern and western Washington. Whatever may be the cause of this difference, it has nothing to do with the locality of the bacillus. It is just as ready to defile the water supplies or to spread in other ways as in other sections of the country, but he suggests that some difference in the soil or water, while allowing it to grow and spread, diminishes its virulence, possibly by reducing its vitality from the onset. One possible cause is suggested, that is, the cooler temperature of the soil and ground water in Oregon, which is shown by the fact that in excavations almost anywhere eighteen or twenty inches below the surface, a temperature can be obtained at which butter remains firm and cream sweet all through the summer. Whatever may be the value of this fact as an explanation, the study is an interesting one and would indicate that the virulence of the typhoid bacillus is distinctly diminished in Oregon, and presumably in Washington and northern California. The subject is worthy of further careful investigation.

Marriages.

ALBERT L. STUTTLE, M.D., to Miss Pearl Jones, both of Williamsville, Ill., April 29.

WALTER N. MINER, M.D., Calais, Me., to Miss Estella Delahay, at Baltimore, April 29.

NATHAN PORTER COLWELL, M.D., to Miss Agnes Louise Peterson, both of Chicago, May 5.

JAMES M. ANDERS, M.D., Philadelphia, to Miss Margaret Wunderlich, at Ardmore, Pa., April 29.

MARTIN H. FISCHER, M.D., Berkeley, Cal., to Miss Charlotte Leonard of Chicago, May 6.

JOHN CALVIN YOUNG, M.D., Roanoke, Ill., to Miss Elizabeth May Monser of Wenona, Ill., May 6.

LOUIS M. FRIEDRICH, M.D., Hobart, Ind., to Miss Minnie Batterman of Chicago Heights, Ill.

GUSTAVE ADOLPH THIEDE, M.D., Baltimore, to Miss Mary MacCreager of Walkersville, Md., April 30.

Deaths.

Edwin Ellis, M.D. University of the City of New York, 1846, died at his home in Ashland, Wis., from paralysis, after an illness of a few hours, May 3, aged 78. Dr. Ellis was a pioneer of Northern Wisconsin, and was known as the "father of Ashland." He had seen the city grow from the primeval forest to its present magnitude, and was closely allied with every good feature of its growth, more especially with the school system. On account of his death the city offices and public schools of Ashland were closed on the day of his funeral.

James **Conland, M.D.** University of Vermont, Burlington, 1878, died at his home in Brattleboro, Vt., from nervous exhaustion, May 2, aged 52. He was a member of the state tuberculosis commission, and had served two terms in the state legislature. He was best known as the most intimate friend in the United States of Rudyard Kipling.

Eben **J. Cutler, M.D.** Cleveland Medical College, 1866, lecturer on surgical pathology and minor surgery in that institution; for two terms a member of the health board, and once police commissioner, died at his home in Cleveland, April 28, from pneumonia, after an illness of one week, aged 65.

Lucius **C. Herrick, M.D.** University of Vermont, Burlington, 1864, assistant surgeon in the Fourth U. S. Colored Cavalry in the Civil War, secretary of the Old Northwest Genealogical Society, died at his home in Cleveland, Ohio, April 30, after an illness of five days from gastritis, aged 63.

William **Holbrook, M.D.** New York University, 1848, surgeon throughout the Civil War; a member of the legislature in 1882, and Medical Examiner for East Hampden since 1877, died at his home in Palmer, Mass., from disease of the stomach of long standing, April 27, aged 79.

DR. JOHN HENRY MUSSER.

THE NEWLY ELECTED PRESIDENT OF THE AMERICAN MEDICAL ASSOCIATION.

Dr. Musser is one of a group of able young men whom the late Prof. Wm. Pepper gathered around him in the University of Pennsylvania—a group notable for ability, means and social standing; a group which Professor Pepper brought up in his own line of teaching, making them consummate diagnosticians and clinicians of unusual ability.

Dr. Musser was graduated from the University of Pennsylvania in 1877. He immediately started in practice in West Philadelphia, one of the poorer districts of the city, and soon built up an enormous practice. After a few years he associated himself in practice with his uncle, on the West Side, and on the death of his uncle succeeded to his extensive practice. During this time he gradually associated himself with his alma mater, beginning as instructor in medicine, his colleagues being Drs. Alfred Stengel, John K. Mitchell and the late Frederick A. Packard.

On the death of Professor Pepper Drs. Musser and Stengel were made professors of clinical medicine in the university, and Dr. Packard was made a trustee.

Later on Dr. Musser moved down town, and now has perhaps the largest family and consultation practice in Philadelphia. He has been physician to the Philadelphia and Presbyterian hospitals, and for many years a member and formerly president of the Philadelphia Pathological Society. He is one of the most modest and unassuming of men, but is surpassed by none in Philadelphia as a diagnostician and clinician.

Beside being the author and editor of standard works like his treatise on diagnosis, which is almost universally known to the profession, Dr. Musser has been for the last twenty years a contributor to periodical medical literature, both in this country and in Great Britain. His wide experience and clinical acumen have contributed a large amount of very interesting matter scattered through various journals which, if collected, would make volumes.

AMERICAN MEDICAL ASSOCIATION.

Proceedings of the Fifty-fourth Annual Session, held at New Orleans, May 5, 6, 7 and 8, 1903.

GENERAL MEETINGS.

Official Minutes.

MAY 5—FIRST GENERAL MEETING.

The Association met at 11 a. m. in the Tulane Theater, and was called to order by the President, Dr. Frank Billings of Chicago.

Prayer was offered by the Rev. H. G. Davis, New Orleans.

Address of Welcome to the City by the Mayor.

Hon. Paul Capdevielle, mayor of New Orleans, was introduced, and delivered the following address of welcome:

Mr. President, Ladies and Gentlemen of the American Medical Association:

Only a few days ago I said to the Convention of American Manufacturers that, although many onerous duties were put on the mayor of a town like this, that of welcoming them to New Orleans was one which gave me nothing but pleasure.

The same idea occurs to me as I stand up before the body of learned and scientific men here assembled to-day. I owe it to the profession to add that except for the skill and devotion of the surgeons and physicians who came to my relief in a recent illness of the most serious character I would not have enjoyed the opportunity of meeting you on the present occasion.

The city of New Orleans is, and has always been, proud of its medical men. It has been the seat for many years of a medical college of the highest reputation.

The state of Louisiana, as its first and largest charity, has supported a great hospital in our midst, which was founded by Don Andres Almonaster y Roxas in 1786, where clinical instruction has been carried on with more practical advantages open to the student than are to be found anywhere else, perhaps, in the United States. Early in her history, the state of Louisiana became instructress in the science of medicine to her sister states of the west and southwest. The study of diseases peculiar to the climate has progressed in this way, with immense advantage to society and to science.

The problems of engineering involved in the drainage and sewerage of the great alluvial plain on which New Orleans is built, the settlement of plantations in different parts of the state, and the treatment of epidemic diseases have been constantly carried on with extraordinary benefits because of the success achieved in their profession by scientific physicians, benevolent men, the benefactors of their kind, who have practiced their calling in the interest of humanity.

In bidding you, as I do, a truly heartfelt welcome, I represent the feeling and sentiment of all our people. They ask your aid and counsel. They hope your deliberations will be marked by entire freedom of inquiry, as well as by harmony, and they look to the results, with assured confidence that these will inure to both private and public good. (Applause.)

Welcome to the State.

In behalf of Governor Heard, Gen. Leon Jastremski spoke as follows:

Mr. President and Members of the American Medical Association:

Called to the dedicatory exercises of the Louisiana Purchase Exposition at St. Louis, the Governor could not extend to you Louisiana's official welcome to the metropolis of the south. It is due to this circumstance that he deputized me to perform this very pleasing duty, which I regard also as a high honor. I would fail in my effort did I not say that in no state or country is the medical profession, or, better still, the calling of medicine, held in greater esteem or admiration than in Louisiana. It is the noblest and most ancient of all professions, dating back, according to the records extant, to the seventeenth century before the Christian era. To the land of the Pharaohs and the pyramids, to ancient Egypt is given the fame of inaugurating the records of the researches of medicine. In that remote era, and in succeeding ages, medicine was combined with theology and philosophy and was held in a reverence akin to superstition. The Jews, the Greeks, the Romans and afterward the Latins propagated the science throughout Europe and America. Amid the desolating plagues, in the camps of the Crusaders, the physician and surgeon went forth braving and enduring every hardship in pursuing his mission and acquiring knowledge. Then, as now, in his merciful work he made no discriminations between the king and the knight, the artisan and the peasant, the high born and the lowly, friend or foe. For him mankind has always been a vast brotherhood, at whose call for help he feels in duty bound to respond.

Some divine inspiration lifts the physician above the level of his fellow men and ennobles his nature. No danger, no loathsome disease repels him. He is found on the battleship, in the camp and the battlefield, attending the sick, the wounded and the dying. He is the presiding genius in the hospital and in the asylum for the insane. Everywhere he is the good samaritan, the tireless searcher for that knowledge that will more speedily cure, abate and prevent disease. For his science every decade is a decade of progress. He is of that army for which there are no hours set apart for repose. When others are resting from labors of the day, the physician is rising to bring hope and relief to the chamber of the sick. We can see him in the lurid conflagration at Moscow and in the appalling retreat of the Napoleonic army over the frozen and snow-covered steppes. We can see him in the column that marched to the relief of Lucknow, and with the famous expedition to Obdurman, across the burning sands. We descry him with the blue and gray at Gettysburg, at Shiloh, at Franklin and at Petersburg. All this is but a shadowy portrayal of the glories and the achievements of those knights of the medical profession, "without fear and without reproach," whose mission is to save, when other men, when nature itself, seek to destroy. Look the world over to-day, and you will be amazed at the progress that medical science has wrought. With its remedies it has mastered hitherto incurable ills, and by the wonderful operation of surgery it saves life and limb in cases that were helpless only a few years ago. By its discoveries in sanitation it has arrested the depopulation of cities and minimized contagion, so that the population of the world is increasing at a ratio never before attained.

You are here to impart to one another the additional knowledge that you have garnered separately for the expansion of the science to which you have devoted your lives. From your conferences, from your discussions, there will flow for mankind beneficences far more precious than heaps of gold.

For all the good that your profession has showered on mankind; for all the good that the American Medical Association has done in the past, and for all the good that it will do in the future, do I extend to you the most profound, the most friendly and the most loving welcome of the state of Louisiana. (Applause.)

Layman's Welcome.

Henry P. Dart, of the local Bar, spoke the welcome of the laymen as follows:

When I was notified to deliver one of the addresses of welcome on this occasion, I inquired who were the other speechmakers. The good doctor who was communicating with me said that the governor would deliver one on behalf of the state, the mayor one on behalf of the people of the city, and then, after some deliberation, he added: "and you may consider that you are going to appear on behalf of our patients."

While the prayer of the chaplain just delivered would indicate that you have also taken thought on the subject and have left your patients to the care of one who never fails, it is quite appropriate that I should convey to you the compliments of your patients and their congratulations that you are so harmlessly engaged on this fair morning in New Orleans. I almost regret to have to add that this city is so distressingly healthy that you would not be able to find substitutes to operate on in lieu of those you have left behind. (Laughter.)

I was further admonished that time was a factor in this address, inasmuch as it was known that 1,500 or more of the brethren would be in the audience, each with a thesis in his pocket and that delivery thereof was essential to the health of the author—a most unparalleled condition of affairs among people who usually do so little talking.

I was also warned to keep away from strictly technical subjects, leaving pulmonary complaints and disordered joints and things of that sort to the consideration of the fraternity. In fact, it was suggested that I should try to get on some ground of common understanding with the people at large, where the sects and divisions of the assemblage could do their thinking without undue effort to follow the speaker. This was, I thought, a delicate hint that while on this task my predecessors

from my profession had exhausted the great question of medical jurisprudence, expert testimony, etc., and had exhausted their audience also.

It certainly is a great pleasure to participate in a gathering of so many of the best and strongest of a great profession, and it tempts one to wish that he could suggest something that would leave a lasting reminiscence in the minds of his hearers. As it is, I shall content myself with a mere note or suggestion of something which seems to me worthy of consideration in this wide and splendid life that you gentlemen lead.

From a layman's point of view, one of the most noteworthy contributions to an age full of noteworthy things is the modern hospital, which is supported entirely by the labors of the medical profession, without whose time, strength and money it would be impossible for its doors to open for the service which it professes.

Statistics show that these great institutions are managed under an expenditure and with as much care and pains taken as is found in the great industrial occupations of the day; and yet, marvelous to relate, the entire medical machinery of the same is furnished absolutely without cost. It is true that one or more men in each institution receive a stipend for their services, but that only proves the rule. All over the country these institutions are accustoming the people to the free services of the physician and surgeon. The rank and file of the community have learned that in these hospitals they will get the best of care, the best apparatus, and the best hand and brain that the profession can furnish, and they appreciate that they get all of this free; and so deep is their appreciation that I fear that they have fallen into the habit of looking on the members of the profession as walking eleemosynary institutions.

The hospital is built on private munificence. The state, it is true, here and there, as in the case of our own noble institution in New Orleans, makes an annual contribution; but this in no wise represents the great sum total of wealth that flows in and out of their portals. How long will the present system continue? Will the people of the coming generation and the members of your profession continue to serve as you have in the past, following literally the mandate of the Divine One to go forth and heal, taking thought neither of scrip or raiment, and depending, as did Elijah in the desert, on the ravens of chance and accident for your subsistence?

The mind is staggered when it contemplates the extent of the sacrifice made annually by the body of your profession in the service of humanity, by way of the hospitals of the country. No other sect or profession can point to an equal record. The preacher follows a philanthropic course by desire, and can not be blamed if his Maker gives him plenty to do while man fails to compensate him. The lawyer is fond of thinking that he is a great contributor to the public welfare without due compensation, paradoxical as that may seem to some of you; but it must be conceded that in the presence of this magnificent giving of the medical profession of their health, their strength and their time, there is no parallel in the world. It comes in on me as a real thing that this tremendous development on charitable lines is a marked characteristic of the times, and it suggests a tendency of the race. It is not accidental, it is an educated taste for which you are responsible, and it opens a great social question, whether or not some day the state will be forced to take it up as a state problem, and to manage charity in so far as healing and curing are concerned as a state institution. But I have not come here with a problem or a theme. I have merely thrown out a thought to fructify while you are bearing, like Atlas, the world of suffering and sorrow on your mighty shoulders.

Response to the Addresses of Welcome.

By the First Vice-President, Dr. J. A. Witherspoon of Nashville, Tenn.:

Mr. President, Ladies and Gentlemen:

I feel hopelessly unable to respond to the welcomes received this morning, especially on such notice as thirty minutes, were it not for the fact that I belong to and am a son of the south and know that every sentiment expressed by these gentlemen is a demonstration of the hearts of every citizen in New Orleans and Louisiana. (Applause.) I feel especially honored in being called on to respond to these addresses of welcome, in view of the fact that I live in the very shadow of the home of that grand old man, Andrew Jackson, who once, with his 3,000 Tennessee squirrel hunters, defended this fair city against the British. (Applause.)

So far as the hospitality at New Orleans is concerned, it was well illustrated by an Irishman, whose friend came to this country, and, having died here, his body was immersed in alcohol and sent back to his native country for burial, and his remark was, "Begorrah! The gentleman leaves in better spirits than he came." (Laughter and applause.) Even the dead in Louisiana are in good spirits.

The work of this state and of this city, headed by your remarkably intelligent State Board of Health, reflects credit on the medical profession, and it is a work that we can point to with pride. New Orleans has been visited so frequently by that particular scourge, decimating our people, blanching the faces of the bravest, so that the medical profession has sprung up as a unit to fight back those terrible diseases that knock at the citadel of our fair land. By the efforts of the Marine-Hospital Service and your State Board of Health we have now reached that proud position where we can say to that death-dealing monster—yellow fever—thus far shalt thou go and no further; you shall not wreck this fair land and take the loved ones from our bosoms, stop the commercial and agricultural interests of the entire people by your death-dealing poison. (Applause.)

We feel, in coming to New Orleans, that we come to one of the oldest and grandest and most hospitable places in this broad land. Many of us come from the east and north for the first time, and they have learned to look on our mountain peaks and our rivers as the most beautiful. It is even claimed that in some of our mountain districts we can stand on the very top of them and tickle the feet of the angels above. (Laughter.) But when we get down here to this temple in the universe, we feel very much like those who have not reached that state of married blessedness; likewise, we do not want to tickle the angels' feet, but we do like to tickle the fancies of some of them. (Laughter.)

Now, ladies and gentlemen, we thank you very much for the courteous and hearty welcome you have extended to us. We all feel at home. We have all left home to give our patients a chance to get well. I want to say to my good friend the lawyer, who has addressed us, that I feel very proud that one of his profession should have at last seen the beacon light and found out the medical profession stands on a pinnacle so high that law can only talk at it. (Applause.)

I have been called on unexpectedly to address you, and I feel very much like the old darky in Virginia who was carrying a turkey along under his arm, and a ventriloquist threw his voice to him: "What are going to do with me?" The old negro looked at the turkey, and said, "I'se gwine drop yuh right heah." (Applause.)

We thank you for your hospitality; we assure you that we feel perfectly at home, and, with these words, I leave the subject with you. (Applause.)

Report of the Committee of Arrangements.

Dr. Isadore Dyer, chairman of the Arrangements Committee, read the following report:

Mr. President and Gentlemen, Members of the American Medical Association:

I understand that a brief report is expected from the chairman of the Committee of Arrangements.

As soon as the medical profession of New Orleans was officially advised of the fact already published in the daily press that the American Medical Association was to meet in New Orleans, organization of the local members of the American Medical Association was effected.

The history of their work has been related in the Association JOURNAL. It remains only for the chairman to convey his high estimation of the individual services of the several sub-chairmen, who have been constant in their labors and earnest in effecting the result which we submit to you.

Whatever fault you may find must be attributable to our crudeness and newness to so stupendous a task; whatever credit or praise, to the work of every man on every committee.

The President's Address.

The First Vice-President, Dr. J. A. Witherspoon, at this juncture took the chair, and President Billings delivered his address. He selected for his subject, "Medical Education in the United States." [This appeared in full in THE JOURNAL, May 9, pages 1271 to 1276.]

TUESDAY, MAY 5—SECOND GENERAL MEETING.

The meeting was called to order by the President, Dr. Frank Billings, in the Carondelet Methodist Church, at 7:45 p. m.

Oration on Surgery.

The President introduced the orator of the evening, Dr. A. F. Jonas of Omaha, who delivered the Oration on Surgery. [This oration, on "Cancer and Immunity," appeared in full in THE JOURNAL, May 9, pages 1277 to 1284.]

Report of Committee on Portraits of Ex-Presidents.

Dr. J. R. Pennington, Chicago, chairman of the Committee on Portraits of Ex-Presidents, reported progress. He said that of the several portraits of ex-presidents in preparation for presentation to the Association, two have been received by the committee and will be formally presented by gentlemen who have been selected for that purpose.

Presentation of the Portrait of Dr. T. G. Richardson.

Dr. Edmond Souchon, New Orleans, presented the portrait of Dr. T. G. Richardson. In doing so, Dr. Souchon said:

It is indeed a great honor that was conferred on me to present the portrait of the first Louisiana President of the Association, Dr. T. G. Richardson, to the American Medical Association for its Hall of Fame. It is a labor of love, however, as I had the happiness to be intimately associated with this good and remarkable man, having been his prosector, his chief of clinic, his assistant also in almost all his operations in private practice and having been his friend and his fervent admirer.

It would require a book to tell of all his life and a pen much more gifted than mine to do justice to this noble man and his great work, but in the brief moments that are allotted me I can only recall the most salient traits of his life and achievements.

Dr. Richardson was born in Kentucky in 1827, and at the age of 18 he began the study of medicine under the direction of the great S. D. Gross, who was the professor of surgery in the Louisville Medical College, and the influence of Dr. Gross on his young pupil was magnetic and most beneficial. Dr. Richardson graduated in 1848 from the medical department of the University of Louisville, and he was immediately appointed demonstrator of anatomy in the medical department of that university. In the midst of his numerous labors he found time to write in several medical periodicals, and founded and edited, with Dr. Gross, in 1855, the "Louisville Review."

In 1856 he resigned his position as demonstrator to accept the chair of anatomy in the Pennsylvania College at Philadelphia, as Dr. Gross at that time had accepted the chair of surgery in the Jefferson Medical College, when they both founded in Philadelphia the "North American Medico-Chirurgical Review." Dr. Richardson was a remarkable dissector, as is evidenced by the numerous specimens he prepared at that time of his life and which now adorn the museum of the medical department of Tulane University, and he was the first one, I think, who used plain English names in his lectures and in his book on anatomy.

It was in 1858 that Dr. Richardson moved to this city to fill the chair of anatomy in the medical department of the University of Louisiana.

He had served as such but four years when the war broke out and, joining the Confederate Army, he became surgeon on the staff of General Bragg, during which term of service he was Medical Inspector of the Army of Tennessee, then Medical Director of the Department of North Carolina, and he was present and on duty at the famous battles of Murfreesboro, Chickamauga, Missionary Ridge and others.

After the war Dr. Richardson returned to New Orleans and was elected dean of the medical faculty. Then began, with the dark days of reconstruction, a most sickening and despairing struggle to prevent the college from falling into the hands of the carpetbaggers, and it required all the courage, determination and skill which he possessed to succeed, but he did ultimately succeed, and all agree that he was the only one who could have succeeded.

In 1872 Dr. Richardson became professor of general and clinical surgery in this college, succeeding the renowned and lamented Stone. It was in 1877 that Dr. Richardson was elected President of the American Medical Association, and presided at the annual session in Buffalo, N. Y., being the first president elected from Louisiana and still the only one.

His health began to fail him in 1886, and he was compelled to resign the chair of surgery in 1889. His illness lasted several years and, in spite of great sufferings, his thoughts were always with his beloved college, so much so that, together with his admirable and generous wife, he donated the sum of $100,000 for the building of a new medical college, the one now standing in our midst and bearing the glorious name of the Richardson Memorial.

Dr. Richardson died in 1892, before he could see the completion of the new college, having been dean for twenty years, a professor for thirty-one years, and having served the profession forty-four years.

Dr. Richardson was tall and stately, with a face of Olympian beauty, particularly as he grew older, with an appearance most impressive. It was reserved and somewhat cold, but it was only on the surface, because no warmer and generous heart ever beat in man's breast. This was most evidenced when he grasped your hand; then a magnetic current ran from him into you, and you felt at once that he truly was a good and earnest man; he was also calm, dignified, unostentatious; his sense of duty was intense, akin to worship, and the word responsibility was to him tremendous and overwhelming.

As a teacher he was surpassed by none, and as a surgeon he had the true mettle, as I could judge in many bloody and trying surgical operations.

He was at all times earnest, clear and forcible in his statements, and was most impressive in his teachings. His judgment was most clear and unerring, and he was modest beyond expression. In all my years of association with him I can not recall an instance when he lost the control of his temper, nor have I ever heard him utter a word of the mildest profanity.

His friendship was as true as steel. He never made any promise, but he had a good trait in that he would do things when you were in need that most unexpectedly showed that he was your friend indeed. Many have been the recipients of his bounty, and I am one of the living examples.

His love for brilliant plants and for exotic trees was most notable. He was unduly fond of children, who were instinctively drawn to him, and his devotion as a husband was the admiration of all who were admitted to his family life. He traveled all over the world, and specially delighted in exploring parts less known to most people.

He was most pure in thoughts, and hated hypocrisy, and last, but not least, his religious nature was most beautiful in its grandeur and sincerity, and many times it excited the envy of the less fortunate ones. When sickness and suffering struck him, he displayed a fortitude and submission to the will of God that was the admiration and wonder of those who saw him in the years of agony that tortured him before he died. A life-long friend of his, the Rev. Dr. Palmer, said that he was remarkable for the simplicity and directness of his character, due to the fact that he was pre-eminently self-contained.

Such was the man whose noble portrait will now truly adorn the Hall of Fame of the American Medical Association.

The General Meeting was then declared adjourned.

WEDNESDAY, MAY 6—THIRD GENERAL MEETING.

The Association met at the Carondelet Street Methodist Church, and was called to order at 7:45 p. m. by the First Vice-President, Dr. Witherspoon.

Oration on Medicine.

Dr. J. M. Anders, Philadelphia, delivered the Oration on Medicine. [This oration, on "Social Conditions in America in Their Relation to Medical Progress and Disease," appeared in full in THE JOURNAL, May 9, pages 1284 to 1292.]

Presentation of Portrait of Dr. Hunter McGuire.

Dr. W. L. Rodman, Philadelphia, delivered an eulogy on Dr. Hunter McGuire, in presenting his portrait to the Association:

In Winchester, Va., Oct. 11, 1835, there began a life which was destined to be famous ere its first quarter of a century was rounded. The son of an eminent physician and surgeon, the talents of Hunter McGuire were fortunately dedicated to medicine. At the age of 20 he received his diploma from the Winchester Medical College, of which his father, Dr. Hugh H. McGuire, was one of the founders and professor of surgery.

Feeling the need of greater clinical advantages than were offered in Winchester, he matriculated in the fall of 1856 in both the University of Pennsylvania and Jefferson Medical College of Philadelphia, that city being then the mecca of southern students. His studies were soon interrupted by an attack of acute rheumatism, and he was compelled to return to his home in Winchester. In 1857 he was elected professor of anatomy in his alma mater, which position he filled one year.

In 1858 he was called to Philadelphia to join Drs. Francis E. Luckett and William H. Pancoast, a son of the famous surgeon and professor of anatomy of Jefferson College, in the conduct of a private quiz class for the benefit of students of that college. Some surprise was expressed that so young and unknown a man should be called to such an important teaching position. Dr. Luckett, when asked why he had chosen so youthful an associate, said: "Wait and see why I wrote for him." In accepting this call, we assume that Dr. McGuire was actuated by a desire to complete the studies interrupted by sickness two years before and to sit at the feet of the two great masters in surgery then at Jefferson College, Gross and Pancoast; the one the greatest surgical philosopher and teacher of his own or any time, the other the most consummate anatomist and the deftest operative surgeon of his day. Young McGuire, tall, spare, handsome, with manners somewhat unconventional and less gracious than many southern men possessed, yet always delightful, pleasing and entertaining as a companion, soon became the leader of the many southern students in this institution—in fact, their beau ideal. His success as an extramural teacher was remarkable and added much to the drawing ability of Jefferson College. Prior to this time a majority of the sons of wealthy southern planters who studied medicine had been going to the older and more renowned institution, the mother of medical schools on this continent, the University of Pennsylvania. The influence of Luckett and McGuire, both Virginians, was potential with southern men and drew many of them to the younger institution.

In December, 1859, sectional feeling became most bitter on account of John Brown's raid at Harper's Ferry, and when his body was brought through Philadelphia en route to his former home in Kansas for burial, the excitement reached white heat. It was then that young McGuire showed the elements of manhood and leadership which characterized him ever afterward. He left Philadelphia, marching at the head of 300 southern students, all armed, for the feeling was bitter and threats had been made against them, bound for Richmond, Va., where the study of medicine could be continued under more congenial environments. He advanced $2,000 of his own money, which he had saved as a quiz teacher, to pay the railroad fare of those students who were unable to do so. They were met in Richmond at the capitol square, where they were addressed in a stirring speech by Gov. Henry A. Wise. The citizens generally received them most cordially; the city council refunded the money spent in railway fares, and the Medical College of Virginia matriculated them without charge, most of the students remaining there, only a few going farther south to Atlanta and New Orleans.

McGuire received his second medical degree from this institution in the spring of 1860. In the fall of this year he then removed to New Orleans and established a quiz class in connection with the medical department of the University of Louisiana, now Tulane University. His stay in New Orleans was destined to be brief, for the following year South Carolina seceded from the Union and his native state, Virginia, was contemplating the same action. Loyal to her, brave and impetuous, he laid aside, for the nonce, the scalpel and listened to the stern alarums of war. He at once returned to Virginia, enlisted as a private soldier, marched to Harper's Ferry, and there he was commissioned as a surgeon and assigned to the command of Gen. Thomas J. Jackson.

In May, 1861, he became medical director of the Army of the Shenandoah, and later, when General Jackson assumed command of the First Virginia Brigade, he asked that Dr. McGuire be made his brigade surgeon. From that time on until the death of his illustrious commander he was closely associated with him personally and professionally. McGuire fully realized that he had been advanced beyond those much older than himself and, feeling that others questioned the wisdom of his very rapid advancement, he went to General Jackson and said that, rather than seem to be the means of doing an injustice to older men, he preferred tearing from his shoulders the insignia of office. Jackson, in his quiet, stern way, simply answered, "I appointed you." This must have meant to the young surgeon that it was an appointment of merit and not a personal preference.

No man ever had a keener insight into men's characters and was able to judge them instantly to a greater extent than Stonewall Jackson. This was, perhaps, the chiefest reason for his brilliant and meteoric career, and has caused him to be recognized by many as the greatest military genius produced by this, the greatest of wars. He saw in the tall, somewhat awkward young man qualifications of mind and heart on which he could unfalteringly depend in the many hard-fought battles and campaigns which yet lay before them. Never were trust and confidence better warranted. The youthful brigade surgeon was first to organize reserve corps hospitals in the Confederacy; this being done in the spring of 1862, during the Valley Campaign. About the same time he perfected the ambulance corps.

Greater, by far, than either of these, important works though they were, was his action early in the war requesting of his commander that eight Federal surgeons who had been captured be at once released on their own promise to endeavor to secure the release of an equal number of Confederate surgeons. This request was at once granted by General Jackson. This action, so manly, so lofty, so humane, at once attracted attention everywhere, and the practice of recognizing medical officers as non-combatants became practically universal in both armies. When he himself was captured in 1865 an order was promptly issued for his release by General Sheridan.

This is neither the time nor the place to speak of the valuable services rendered the Confederacy, from Manassas to Appomattox, by this able military surgeon. Without disparagement to others, it will be generally granted that he was the most conspicuous, useful and, perhaps, the greatest medical director in either army during the Civil War. He was, of course, fortunate in serving under such commanders as Lee, Jackson, Ewell and Early and could not have enjoyed the confidence of all as a man, a surgeon and a soldier to the extent that he did unless possessed of unusual qualifications. As a result of his large and varied experience as a military surgeon, he was asked to write the chapter on gunshot wounds for Holmes' System of Surgery, and has ever since been recognized as an authority on the subject throughout the civilized world.

His two most distinguished patients during the war were General Jackson himself, on whom he did an unsuccessful amputation, and a young lad, 18 years of age, who was shot with a minie ball midway between the knee and hip, which shattered the bone badly and which caused McGuire and the other surgeons to advise hip-joint amputation. The young fellow protested; McGuire telegraphed to his father, who came from Lynchburg, and, as a result of the entreaties of father and son, an effort was made to save the limb. McGuire removed nearly all of the femur, little dreaming that his patient would recover. He did so, however, and, though a cripple in body ever since, he is a giant in intellect, and to-day represents Virginia in the United States Senate.

After the close of the war in 1865, utterly broken in fortune, but not in spirit, Dr. McGuire settled in Richmond, Va., to begin the practice of medicine. He was soon called to the chair of surgery in the Medical College of Virginia, made vacant by the death of Dr. Charles Bell Gibson. The same qualifications which had made him so successful in war brought him immediate recognition and success in civil practice. As a teacher he was clear, lucid and forceful. He soon became famous as a lithotomist, lithotripist and ovariotomist; patients coming to him from all parts of the south.

The year after he settled in Richmond he married Miss Mary Stuart of Staunton, Va., daughter of Secretary of the Interior Stuart under President Fillmore. She must have been a beautiful girl, judging from her appearance and gracious bearing as a mature woman when she officiated, in 1892, as the wife of the President of the American Medical Association. Her manners were most charming. They were a typical southern couple and unusually devoted to one another. As a result of this union there were nine children, two of them physicians, Dr. Stuart McGuire of Richmond and Dr. Hugh McGuire of Alexandria. The former, who was associated with his father in work, now fills his professorship and is a man of fine ability and one of the well-known surgeons in the south.

Dr. McGuire continued to fill the chair of surgery in the Medical College of Virginia until 1878, when faculty differences caused him to retire. Later on, however, he was made emeritus professor of surgery. He devoted himself, for several years, entirely to his private practice, which was so large as to compel him to have a private hospital, which he built in 1883 and called "St. Luke's Home for the Sick." In 1893 Dr. McGuire organized and caused to be incorporated the University College of Medicine, the doors of which were opened in October and which at once proved to be a success. From the beginning it was a three-year graded school and up to the time of his death he was its professor of clinical surgery.

Dr. McGuire was no ordinary man; he was an original thinker and can be truly considered a "pathfinder" in medicine and

surgery. His large experience as a military surgeon had taught him the futility and hopelessness of treating gunshot wounds of the abdomen by the expectant plan and many years before the first laparotomy was performed for such injury he advised it and predicted that the time would come when gunshot wounds of the abdomen would not be treated by opium and a "do-nothing" policy. To McGuire and Sims, who were the first in America to advise surgical intervention in gunshot wounds, and to Kinloch, the first to put into practice this teaching, we are indebted for the advancement which has brought at least 50 per cent. of recoveries where hitherto nearly all had been lost. I speak advisedly, I think, for then the large, round, leaden ball was used which, moving with slow velocity and usually carrying in with it foreign material of septic nature, was practically always fatal. Great as is the word of speech, the word of action is greater, and we must, therefore, accord to Kinloch the greater credit. Perhaps McGuire was best known for his work in the treatment of enlarged prostate, and his original operation of establishing an artificial urethra after a suprapubic cystotomy. At this time, when prostatectomy and Bottini operations are the fads of the day, it is well particularly to emphasize the good work done by McGuire in this direction. There is no doubt that many cases have been made to enjoy a comfortable existence by his operation which would have inevitably perished had either a prostatectomy or Bottini operation been performed on them.

Dr. McGuire had many civic and professional honors conferred on him; being in turn president of the Richmond Academy of Medicine; one of the organizers and president of the Virginia State Medical Society; president of the Southern Surgical and Gynecological Association; vice-president of the International Medical Congress; president of the American Surgical Association, and President of the American Medical Association in 1892. He had many honorary degrees conferred on him by different institutions, notably Jefferson College, where he wrought as an extramural teacher in anti-bellum days.

He was not a voluminous writer, and yet he wrote singularly well and has left several productions which will endure. As a companion he was most charming and entertaining. As a raconteur he had few equals, and could tell the southern darky stories in a way that no one else I have ever seen could do. He was easily the foremost citizen of Richmond and was so recognized.

His life closed with the nineteenth century, which had produced so many great men and had seen surgery advanced in such a remarkable way.

McGuire was fortunately young enough to accept and practice antiseptic surgery from its birth, and it was due to this fact that he, along with Yandell of Louisville, his intimate friend, could do better work than any of their great predecessors had done.

No part of America has contributed more to surgery than the south, and the impartial critic must accord Hunter McGuire a high place, even in such company as McDowell, Dudley, Brashear, Sims, Battey, Stone, Smythe, Eve and Yandell.

In the spring of 1900, while driving from his house to St. Luke's Hospital, he was seized with acute bulbar paralysis. Unable to speak, he motioned his driver to hurry on to the hospital, then, suddenly changing his mind, he directed him to drive to his home. Here he lived surrounded by his faithful wife and children for six months, unable to articulate, but at times able to drive and walk about. He had been in ill health for several years, being a great sufferer from gout, and this, we know, prevented him from attending the various associations of which he was a member. He was so missed at the Denver meeting that at the banquet of the Section on Surgery it was unanimously voted that he be sent a telegram conveying the love and best wishes of the Section.

On September 19 he fell asleep, hearing, let us believe, the voice of his great commander calling, "Comrade, I am waiting. Cross over the river and rest under the shade of the trees."

Now, Mr. President, in the name and by the request of his family, I take pleasure in presenting the Association with the portrait of the surgeon, the soldier, the gentleman, Hunter McGuire of Virginia.

A motion was made and carried thanking the donors of Dr. Richardson's and Dr. McGuire's portraits, after which the meeting was adjourned.

THURSDAY, MAY 7—FOURTH GENERAL MEETING.

The Association met at 7:30 p. m., and was called to order by the President

Dr. William H. Welch, Baltimore, delivered the Oration on State Medicine.

After this the Association adjourned.

FRIDAY, MAY 8—FIFTH GENERAL MEETING.

The General Meeting was called to order at 12:15 p. m., in the Carondelet Street Methodist Church.

The Secretary presented a brief report of the work accomplished by the House of Delegates, and announced the officers elected. [See proceedings of the House of Delegates, page 1383.]

President Billings invited the Vice-Presidents present to the platform, and among those who responded were Drs. G. C. Savage, C. Lester Hall and George F. Jenkins.

Turning to the Vice-Presidents, President Billings said: I congratulate the Association, and I congratulate you, on the election to the high office you occupy for the ensuing year.

President's Closing Address.

In closing this meeting, I desire to say a few words to the members of the Association who listened to my long address at the opening, and to the House of Delegates, who have borne with me patiently for four days. In addition to what I said last year when inducted into office, I wish to say that I appreciate the honor which this Association did me in electing me its President. I have endeavored with might and main, truthfully and faithfully, to do the work which the office entails. If mistakes have occurred, they have been mistakes of judgment, and my ability was not sufficient to prevent them. But I can assure you that my efforts have always been in earnest.

Again I thank you most heartily for the honor you have done me. (Applause.)

Dr. Charles A. L. Reed, Ohio, moved that when the Association adjourns, it does so to meet in adjourned meeting on Tuesday, May 12, 1903, at 2 p. m., at 103 Dearborn avenue, Chicago. Carried.

On motion of Dr. McMurtry, the General Meeting then adjourned.

HOUSE OF DELEGATES.

Proceedings at New Orleans, May 4, 5, 6, 7 and 8, 1903.

Official Minutes.

MONDAY, MAY 4, FIRST (INFORMAL) MEETING.

The House met informally at the Carondelet Street M. E. Church, and was called to order by the President, Dr. Frank Billings, Chicago, at 3 p. m.

The President stated that the object of the informal, but unofficial, meeting was to listen to reports of committees, which were published, and refer them to committees, thus shortening the work which would come before the House at future meetings. He said, further, that last year the Business Committee recommended that the House of Delegates hold its first meeting at 8 o'clock the evening preceding the regular meeting of the Association, and a resolution to that effect was accordingly adopted. Therefore, at 8 o'clock this evening the House could transact regular business, if there was no objection.

The report of the Board of Trustees was called for, and passed, as the board was not ready to present its report at this time.

Report on Prophylaxis of Venereal Diseases.

Dr. Henry D. Holton, Brattleboro, Vt., chairman of the Committee on Prophylaxis of Venereal Diseases, read the report of that committee. [This was printed in full in THE JOURNAL, May 9, pages 1317 to 1319.]

Dr. William T. Bishop, Pennsylvania, moved that the thanks of the House be extended to the committee; that the committee be continued, and granted the privilege of appointing additional members, if deemed necessary, to carry out the recommendations submitted in the report. Seconded.

Dr. H. Bert Ellis, California, moved to amend that the Board of Trustees be instructed to furnish funds necessary to carry on the work of the committee. Seconded by Dr. Hill, Wisconsin.

The amendment was accepted; whereon Dr. J. N. McCormack, Kentucky, moved as a substitute that this important matter be referred to the Business Committee, and subsequently be brought before the House with the recommendations of the Business Committee.

The substitute was seconded and carried.

Business Committee Reports.

The President called for the report of the Business Committee.

Dr. Harold N. Moyer, Illinois, chairman, said the committee had not been able to have a formal conference in reference to matters to come before the House; therefore, a definite or formal report could not be made at this time. However, he was prepared to say that the committee had agreed on this plan: That the House of Delegates shall meet at 9 a. m. in official executive meeting, and it is hoped that half an hour or an hour devoted to each meeting will dispose of the business, permitting an adjournment of the House as a whole, and passing then to a committee of the whole, for the discussion of such special topics as might be assigned from the House. An afternoon meeting of the House could be held, if necessary. This, in brief, was the substance of the committee's report, so far as it relates to advising the House as to the conduct of its business. Dr. Moyer said the Business Committee would make its formal report at a subsequent meeting.

On motion of Dr. A. E. Baldwin, Illinois, the matter of selecting a member to respond to the addresses of welcome was left to the President.

On motion, the House adjourned, to meet at 8 p. m.

MONDAY, MAY 4, SECOND MEETING.

The House reconvened at 8 p. m., and was called to order by the President.

Dr. H. N. Moyer, Illinois, chairman of Business Committee, said the committee had considered the status of this meeting, and that it was in conflict with the Constitution. Therefore, anything done would have no legal effect. The committee urged, however, that such business as could be gotten through be taken up, and, as a preliminary to that, unanimous consent to the consideration of business at this time should be obtained, otherwise the committee feared the House could not proceed.

On motion of Dr. William T. Bishop, Pennsylvania, unanimous consent was granted and the business proceeded.

Dr. Moyer, speaking for the Business Committee, said that, according to a resolution adopted last year, all new business is referred to the Business Committee without debate. He, therefore, suggested that the resolution of last year be carried into effect this year.

Dr. H. O. Walker, Michigan, moved the readoption of the resolution of last year. Carried.

Dr. Moyer said the Business Committee recommends that when this meeting adjourns, the House meet at 2 p. m. tomorrow.

Dr. H. A. West, Texas, moved that the recommendation of the committee be concurred in. Carried.

Dr. Moyer stated that the Business Committee recommends that the following business come before the meeting: 1. Report of Board of Trustees. 2. Report on Association Medal. 3. Report on Senn Medal. 4. Report of the Committee on Scientific Research. 5. Report of Committee on Public Health.

It was moved that the order of business be that outlined by the chairman of the Business Committee. Carried.

The Secretary called the roll of delegates, and a quorum responded.

Report of the Board of Trustees.

Dr. T. J. Happel, Tennessee, chairman of the Board of Trustees, then read the report of the board. [This appeared in full in THE JOURNAL, May 9, pages 1309 to 1317.]

On motion of Dr. H. O. Walker, Michigan, the report was accepted and the recommendations contained therein referred to the Business Committee.

The President called for the report of the Committee on Association Medal, which was passed.

The President called for the report of the Committee on Senn Medal, when Dr. M. L. Harris, Illinois, a member of the committee, said the committee was not yet ready to make its report. He asked for further time, which was granted.

Report of the Committee on Scientific Research.

In the absence of Dr. Alfred Stengel, chairman of the Committee on Scientific Research, the Secretary read the report of this committee, as follows:

Early in the fall, the committee advertised in the pages of THE JOURNAL and through other medical journals, that five grants of $100 each would be made to persons applying for the same who could show sufficient training and opportunity to warrant the making of a grant. Considerable correspondence resulted and applications were received from a number of physicians. From these the committee has selected, as most deserving, the following:

Dr. Newton Evans and Dr. F. J. Otis, Battle Creek, Mich., for work on "Systemic Infection with Blastomycetes."

Mr. G. F. Ruediger, Rush Medical College, Chicago, for work on "Virulent Streptococcus."

Dr. J. T. Moore, Galveston, Texas, for a study on the "Latency and Relapses of Malarial Fever."

Dr. H. E. Wetherill, Philadelphia, for an "Experimental and Clinical Study of Sweat Secretion."

ALFRED STENGEL, Chairman.

On motion of Dr. E. E. Montgomery, Pennsylvania, the report was referred to the Board of Trustees, inasmuch as it involves the appropriation of money.

The report of the Committee on Public Health was called for.

Dr. H. A. West, Texas, a member of the committee, said he had not heard from the chairman. He suggested that the report of this committee be postponed until the members of the committee had held a meeting.

The suggestion was accepted, after which the House, on motion, adjourned to meet in the Council Chamber of the City Hall at 2 p. m., Tuesday.

TUESDAY, MAY 5, 1903—THIRD MEETING.

The House of Delegates met at 2 p. m. and was called to order by the President.

The Secretary called the roll, and a quorum was present.

The Secretary read the minutes of the previous session.

On motion of Dr. McCormack, the minutes were adopted as read.

Dr. Joseph D. Bryant, New York, took the chair, and President Billings delivered the following:

Message of the President to the House of Delegates.

The year just completed has been a remarkable one in the history of the Association.

This, the second meeting since the plan of reorganization was adopted, finds something like eighteen states practically completely organized on the plan outlined by the Committee on Organization. This committee will make a detailed report, which I am sure will be most gratifying to you.

THE FUTURE REORGANIZATION PROGRAM.

The Board of Trustees has told you of the necessity of commanding the service of an organizer who may visit the different parts of the country and personally explain to the physicians of county societies and of state associations the plan of organization.

The Trustees found an ideal man in the person of Dr. J. N. McCormack, chairman of the Committee on Organization. He is especially fitted for the task. His strong personality, backed by the wisdom of a Solomon, a superlative tact and the thorough knowledge of the subject which three years or more of work and experience in reorganization has given him, enable him to do the work as could few, if any, others.

We must not rest content with reorganization where we are. The work has just begun. To carry it on and complete it the

Association must spend money. If properly expended it will return to us in some form of compensation and prove a good investment.

I believe the Association should, therefore, recommend to the Board of Trustees the continued employment, if he will consent to spare the time to do it, of Dr. McCormack as an official organizer of the Association.

THE RUSH MONUMENT.

Eighteen years ago the Association met in New Orleans. At that meeting a resolution was adopted to appoint a committee for the purpose of obtaining funds with which to erect a monument at Washington, D. C., to Benjamin Rush. It was believed by the maker of the resolution that the estimated necessary sum of $50,000 with which to erect the monument could be raised by subscription in two or three years. It is not necessary to recall to you the fact that you have had a Committee on Rush Monument since that time. This year the committee decided to use the funds already in hand and carry out the plans of the Association begun so long ago.

The committee will maks its report in detail. I only desire to say that the monument will be erected on a suitable site in Washington, on or before the end of 1903. I would, therefore, suggest to you that it would be eminently desirable that the next meeting of the Association be held at Washington, when the Rush monument could be dedicated with proper and imposing ceremonies.

BUREAU OF MEDICINES AND FOODS.

During the year it became necessary for your president to appoint a Provisional Committee on the Establishment of a National Bureau of Medicines and Foods.

The necessity of the standardization of foods and drugs is one which probably all will admit who have considered the subject.

Just what part this Association may safely and judiciously take in the management and control of a corporation which shall attempt to control food and drug adulteration of the country is one on which the Provisional Committee will report.

MEMBERSHIP FOR STOMATOLCGISTS AND PHARMACISTS.

One of the best conducted sections of the Association is that of Stomatology. Its efficient secretary has served continuously for sixteen years. This section is threatened with annihilation, since the plan of reorganization was adopted. This should be obviated by the adoption of the by-law proposed last year which would enable the reputable dentists who have a degree of D.D.S. to become associate members of the Association.

The same condition appertains to the graduates in pharmacy, and similar action should be taken with them.

The mention of graduates in pharmacy reminds me that the Section on Materia Medica, Pharmacy and Therapeutics has advanced far beyond its scope. Two years ago it was proposed that the therapeutics be dropped from that section and that all papers relating to the treatment of disease be transferred to the Section on Practice of Medicine. This should be done. The proper designation of the present Section on Materia Medica, Pharmacy and Therapeutics should then be the Section on Pharmacology. The papers then offered in the section should be limited to the very broad and interesting field designated under the above-named title.

DETERMINATION OF ANNUAL SESSION PLACES.

Each year the Association is forced to precipitately consider the subject of the next place of session. The result is that the place has not been always chosen wisely.

The Association would be materially aided in choosing the next place of meeting if it should make the Committee on Transportation and Place of Session a permanent one.

It would be well to have the chairman of this committee so situated that he would be in touch with the Secretary and with THE JOURNAL of the Association.

Those cities which desire to have the Association on any specified year should be obliged to place the invitation in the hands of the committee at least three months in advance of the meeting next preceding that to which the Association is invited. The committee should then collect data as to facilities of travel, with rates, hotel accommodation and rates, and the opportunities afforded in the way of halls and other suitable meeting places by the city sending the invitation. The committee would then be able to report definite and desirable data to the House of Delegates. This would enable us to choose the next session place without fear of overcrowding in hotels, of inadequate railroad facilities, poor or widely separated halls for section meetings and extortionate charges in hotels and elsewhere.

MEMORIAL TO MAJOR REED.

Last autumn the American medical profession and this Association lost one of its most useful and illustrious members. The death of Major Walter Reed was a national disaster. His work in the investigation of yellow fever stamped him as an original scientific experimenter. His methods were resourceful, bold, brilliant and decisive. Like all true scientists, he was modest, quiet, retiring and superbly humane. He was a captain of science, but only we of the profession can know what his work has done for humanity and commerce.

To those whom his work will be of the greatest benefit his death passed unnoticed; Congress voted his widow a paltry pension.

This Association can not afford to let Major Reed's death pass unnoticed. His memory should be perpetuated by some suitable memorial to be erected at Washington or at his grave in Arlington.

Just how the Association should proceed in the matter of aiding in the erection of this memorial is a question which I shall leave to the delegates of this house.

THE BUSINESS PROCEEDINGS.

Gentlemen, the membership of the House of Delegates is composed of the picked men of the membership of the affiliated state associations. You have been selected by your state societies because you possess attributes which make you better qualified, perhaps, than your fellow members to carry on the legislative business of the Association. The members of the Association, therefore, expect work of the highest order from you. Your acceptance of the office of delegate implies that you will give the proper attention to the duties of a delegate. This means a prompt report at the opening of each session and continuous attendance at the general meetings and on the committees to which you may be appointed. This means a sacrifice of time from attendance on the scientific work of the sections and the social pleasures here offered you. This sacrifice may be minimized for most of you by promptness and fidelity in attendance on meetings and especially if we shall consider all questions which come before us in a rational, liberal minded way. There should be no quarreling here. We may differ in opinion and still retain possession of our better natures and sounder judgment. Your president is not a parliamentarian. There may be men on this floor who are versed in all the methods of blocking action and confusing the presiding officer.

This I mention as an indication of my own limitations and not that I expect to meet opposition on this floor. I bespeak your indulgence and patience, and I assure you of my desire to conduct your business fairly and with dispatch.

On motion of Dr. Wall, Buffalo, the address was referred to the business committee.

The next order was the report of the Secretary, which was read.

Report of the Secretary.

CHICAGO, May 1, 1903.

To the Members of the House of Delegates, American Medical Association:

Gentlemen:—At the last meeting of this Association I was instructed to obtain, as far as possible, correct information in regard to the qualifications of every physician who now claimed membership in the American Medical Association, and to drop all who are not eligible according to our laws.

For various reasons it was impossible for me to systematically start at this work before December. On commencing it, I found that the task was much larger than might have been anticipated, for the reason that but few of the state societies had a knowledge of those who were members of affiliated societies in the state and, consequently, eligible to membership in the American Medical Association. Hence, in spite of a large amount of correspondence, we have not been able to more than half complete the work of verifying our list of members.

In those states that have reorganized, the problem is an easy one, but in the other states it is decidedly difficult, although I think in a very short time the work will be completed.

At the beginning of this work there was very little cooperation on the part of the officers of some of the state societies, and under these circumstances it was thought best to let the matter drop until more interest was shown. At the

present time I am glad to say that in nearly every instance a disposition is shown to co-operate with the American Medical Association, not only in this matter but in others also. The state societies are beginning to appreciate that the work of the Association in this regard especially will redound to their benefit and usefulness.

Up to the present time 146 members have been dropped on account of not being members of affiliated societies. Aside from these, between 125 and 150 were at first not qualified, but have now associated themselves with affiliated societies or have made application for membership. These have been retained on the list of members of the American Medical Association, believing that it is better to take more time and thus give those an opportunity who desire to remain members of the Association and to co-operate in the work of organization.

The experience thus far has convinced me that this enforcement of the by-laws of the Association will prove to be of benefit, not only to the county and state societies, but to the American Medical Association.

A very large number have an idea that the laws in regard to membership now being enforced are new conditions, and protests have been made for this reason. When it is shown that these rules and regulations governing membership are not new, and that the only change is that they are now being enforced, criticisms on the action of this Association are disarmed.

The membership of the Association during the year ending Dec. 31, 1902, increased about 1,450. Since January 1 there has been an increase of 920. In other words, during the last few months, since the enforcement of the by-laws, the membership has increased faster than ever.

MANILA MEDICAL SOCIETY.

I received a letter from Dr. Richard P. Strong, secretary of the Manila Medical Society, on Dec. 15, 1902, in which he said:

I have been directed to forward to you a certified copy of the constitution of the Manila Medical Society, and to request of the American Medical Association recognition and affiliation.

I submit herewith the constitution forwarded.

UNITED STATES INDIAN SERVICE.

Dr. Z. T. Daniel, of Rose Bud, S. D., a member of the Association and connected with the United States Indian Service, wrote, under date of March 30, 1903, asking that the rules regulating membership of the officers of the Army, of the Navy and of the Marine-Hospital Service should also apply to the United States Indian Service.

DELEGATE TO THE CANADIAN MEDICAL ASSOCIATION.

April 2, 1903, I received a letter from Dr. George Elliott, general secretary of the Canadian Medical Association, dated April 1, 1903, in which he said:

The president of the Canadian Medical Association, Dr. Walter H. Moorhouse, London, Ont., desires me to extend an invitation to the American Medical Association to appoint a delegate from your Association to the thirty-sixth annual meeting of the Canadian Medical Association, which is to be held this year in the city of London, Ontario, on the 25th, 26th, 27th and 28th days of August.

Respectfully submitted,

GEORGE H. SIMMONS, Secretary.

On motion of Dr. Bishop, Pennsylvania, the report was referred to the Business Committee.

Report of Business Committee.

The House then listened to the report of the Business Committee, presented by Dr. Moyer, Illinois, chairman, on the order of business of the day. The committee further reported that when the House adjourns, it adjourns to meet at 9 o'clock to-morrow morning.

On motion of Dr. Wall, Buffalo, the report of the Business Committee was adopted.

Dr. Moyer, Illinois, speaking further for the Business Committee, said that the committee had considered the report of the Board of Trustees and other sundry matters referred to it. He read the committee's recommendations that are detailed below.

Trustees and Journal Praised.—The committee desires to express its appreciation of the skilful management of the property of the Association by the Board of Trustees, and to commend the scientific position which THE JOURNAL has achieved under the direction of the Board of Trustees.

Dr. William T. Sarles, Wisconsin, moved that the report of the Business Committee be adopted as presented. Seconded.

Dr. William T. Bishop, Pennsylvania, moved to amend by taking the report up seriatim. Seconded.

The motion as amended was carried.

New Button Design Adopted.—Dr. Moyer then read the following: The committee recommends that the new design for the official button be adopted.

On motion, this section of the report was adopted.

Incorporation Postponed.—The next item was in regard to the matter of national incorporation. On this subject the committee reported: In common with the Board of Trustees, the committee regrets the difficulty attending national incorporation, and feels that this should be kept before the Association as an ultimate goal, but that no further action on this subject should be taken at this meeting.

It was moved and seconded that this recommendation be adopted.

Dr. Lester, New York, moved as an amendment that a committee be appointed to get the advice of the best legal talent in the United States as to whether the Association could be incorporated under an act of Congress or not, and report at the next annual session to the House of Delegates.

The amendment was seconded and accepted. After some discussion, Dr. Wall, Buffalo, moved as an amendment to the amendment that the House authorize an expenditure of $500 for the purpose of obtaining legal opinions which may be submitted one year from now. (Not seconded.)

The original motion as amended was then put and carried. In the discussion it was understood that no money shall be expended for this purpose.

As Dr. Lester did not specify the number of the committee in his amendment, Dr. A. E. Baldwin, Illinois, moved that a committee of three be appointed by the President to consider the matter of national incorporation. Seconded.

Dr. Stevens, Pennsylvania, moved to amend that a committee of five be appointed instead of three and that no two members of the committee shall be from the same state.

The amendment was accepted and carried.

Trustees' Report Adopted.—Dr. Moyer said the committee recommends the adoption of the report of the Board of Trustees as a whole, as amended. On motion, this recommendation of the Business Committee was concurred in.

Report of Committee on National Bureau of Medicines and Foods.

Dr. E. Eliot Harris, New York, presented the report of the Committee on the Establishment of a National Bureau of Medicines and Foods.

On motion of Dr. J. N. Jackson, Missouri, the report of the committee was referred to the Business Committee.

Report of Committee on Revision of Code of Ethics.

Dr. E. Eliot Harris, New York, chairman, presented the report of the Committee on Revision of Code of Ethics and offered the following resolutions:

Resolved, That the Special Committee on Revision of the Code of Medical Ethics unanimously recommends that its report be referred to an enlarged committee, consisting of this Special Committee and one delegate from each state not already represented on the Special Committee, to be appointed by the President.

Resolved, That the enlarged committee give a hearing to any member of the Association who may desire to appear before it at the St. Charles Hotel on this, Tuesday, evening at 9 o'clock.

Dr. Harris, Illinois, moved that the report of this committee and its resolutions and any amendments pertaining to this subject and now ready to be offered, be referred to the Business Committee for action.

Dr. Wall, Buffalo, moved that the report of the committee be received and that the recommendations be adopted. Seconded.

Dr. Charles A. L. Reed, Ohio, offered a substitute for the report of the committee, and moved its adoption.

It was moved that the substitute report for the report of the Special Committee on the Code of Ethics, together with

the resolutions offered and the report of the Special Committee, be referred to the Business Committee.

Dr. Reed's resolution was accepted by Dr. Harris, and the report was so referred.

[See report of enlarged committee on page 1379.]

The President called for the report of the Committee on Sections and Section Work.

Dr. L. S. McMurtry, Kentucky, chairman, said that as only two members of the committee were present he requested the privilege of making the report to-morrow, if compatible with the business before the House.

There being no objection the request was granted.

Report of the Committee on Medical Education.

The report of the Committee on Medical Education was read by Dr. Arthur D. Bevan, Illinois, chairman of the committee.

Mr. President and Members of the House of Delegates:

Your Committee on Education, consisting of Floyd W. McRae, Atlanta, Ga.; Rudolph Matas, New Orleans; R. A. Marmion, U. S. Navy, Washington, D. C.; C. A. Daugherty, South Bend, Ind., and Arthur Dean Bevan, chairman, respectfully submit the following report:

THE ORIGINAL PURPOSE IN FOUNDING THE AMERICAN MEDICAL ASSOCIATION.

We desire first to call attention to the fact that the American Medical Association was formed for the purpose of elevating the standard of medical education in this country. The original call of the Medical Society of the State of New York, which led to the formation of the American Medical Association, was as follows:

WHEREAS, It is believed that a national convention would be conducive to the elevation of the standard of medical education in the United States, and

WHEREAS, There is no mode of accomplishing so desirable an object without concert of action on the part of the medical societies, colleges and institutions of all the states:

Resolved, That the New York State Medical Society earnestly recommends a national convention of delegates from medical societies and colleges in the whole Union to convene in the City of New York on the first Monday in May, 1846, for the purpose of adopting some concerted action on the subject set forth in the foregoing preamble.

Resolved, That a committee of three be appointed to carry the foregoing resolution into effect.

These delegates met and adopted the following, which resulted in the formation of the American Medical Association:

First. That it is expedient for the medical profession of the United States to institute a national medical association.

Second. That it is desirable that a uniform and elevated standard of requirements for the degree of M.D. should be adopted by all the medical schools in the United States.

Third. That it is desirable that young men before being received as students of medicine should have acquired a suitable preliminary education.

Your committee find, therefore, that the American Medical Association was founded for the purpose of elevating the standard of medical education in the United States. Your committee believe that this is still one of the important functions of the American Medical Association. In the course of years this object has been largely lost sight of, probably because with a loosely organized body it was difficult to accomplish satisfactory results in this direction. With the new reorganization of the Association into a compact representative body, representing the medical profession of each county and state, your committee feel that the American Medical Association has become the best national instrument to supervise and elevate medical education.

THE IMPOSSIBILITY OF NATIONAL LEGISLATION.

Our form of government in this country, giving to each state the right to control its own affairs subject simply to the limitations imposed by the constitution of the United States, makes it impossible to obtain medical legislation from the national government. A national supervision of some sort is obviously a necessity. In the absence of national governmental control, we believe that national effort to elevate medical education can be made most effective through the agency of the American Medical Association. Your committee believe that it is the duty of the American Medical Association to undertake such national supervision of the matter of medical education, and that it has the influence sufficient to make its regulations effective.

THE NEED OF ELEVATING THE STANDARD.

Your committee find that the standard of medical education in the United States is very uneven, representing the highest and lowest types, as compared with such civilized powers as England, France and Germany. As a whole, it is distinctly lower than in those countries and lower than it should be to meet the requirements of medical science in the present stage of development. With the advances which are rapidly making medicine a science, the study and practice of medicine are becoming year by year important and weighty functions in every community.

Medicine demands a better order of intellect and better preparation than is possessed by the poorer part of the men who are to-day entering its ranks in America. The other great world powers, our competitors in commerce, arts and science, demand in their medical men as a minimum requirement a preliminary education equal to or more than our best high schools, and then five years of medical study. Such requirements are none too high, and we in this country can not much longer afford to remain satisfied with anything in medicine short of the best. We can not, however, obtain such a marked advancement in requirements at once or in one step. Such an advance must gradually be brought about. Many agencies are now actively at work elevating medical education in this country. The great universities with medical departments have some of them advanced their requirements to a higher point than that obtained anywhere else in the world; the examining boards of many states have done much to elevate medical education by their demands; the work of the Association of American Medical Colleges has also been a factor of importance.

The great work, however, of bringing the entire body of the American medical profession up to an acceptable standard will be accomplished not by university presidents or state legislatures, or associations of medical schools, but by the medical profession itself, through its county, state and national associations.

A PLAN SUGGESTED.

The first step in advancing medical education to be taken by the American Medical Association should be the adoption of an educational requirement for membership—i. e., the fixing of a minimum requirement both as to preliminary education and as to medical education. This, in the opinion of your committee, should be:

First. As a preliminary requirement a high school education—i. e., sufficient to enable the student to pass the examinations for entrance to our standard universities.

Second. A four-year medical course of at least seven months in each year. That requirement should become effective within five years and apply to graduates of 1908 and after that date, sufficient notice being thus given to all medical schools of the country to enable them to change their curricula to meet these requirements.

DETAILS OF CARRYING OUT THE PLAN.

As to the best plan of making this effective, your committee believe that this should be accomplished in the following way:

After voting to adopt such educational requirements, the House of Delegates should inform the officials of each state medical society that the American Medical Association has adopted such educational requirements for membership, and suggest that such officials notify each county medical society in their state, with the request that the educational requirement adopted by the American Medical Association be made a part of the constitution of each county medical society. Your committee believes that such action would be practically unanimously taken, and in this simple way the first and longest step in the way of supervising and elevating medical education by the American Medical Association could be accomplished. Because of the amount of work, especially correspondence, made necessary to see that such educational requirement is made a part of the constitution of each county medical society, your committee would suggest that a considerable degree of permanence be given to the committee on education, and that sufficient funds be appropriated to enable such committee to effectively carry on their work.

Your committee would suggest that the educational committee consist of five members serving five years, one to be appointed each year; the first committee to be appointed one for one, one for two, one for three, one for four and one for five years; thereafter, one new man appointed each year.

Your committee would suggest that a sum not exceeding $5,000 each year be appropriated to carry on the work of the committee on education, a part of this to be paid a salaried assistant secretary selected by the committee. We would recommend that the Secretary of the American Medical Association be made *ex officio* a member of this committee and that

headquarters of this committee be provided in the office of THE JOURNAL Building of the American Medical Association.

THE COMMITTEE'S PROGRAM OF ACTION.

Your committee further suggests that it be the duty of the committee on education to:

1. Secure the adoption of the educational requirements determined on by the American Medical Association by each state medical society, and assist the state medical societies in securing the adoption of these educational requirements by each county medical society.

2. To see to it that all medical schools are thoroughly informed of the educational requirements of the American Medical Association and to urge on such schools as do not demand such requirements the necessity of doing so.

3. To inform themselves as to the requirements and character of work done by each medical school.

4. To inform themselves as to the laws governing the practice of medicine in each state and as to the manner in which these laws are being enforced.

5. To inform the state examining boards and licensing bodies of the educational requirements of the American Medical Association and urge those whose requirements are below those of the American Medical Association to adopt the higher requirement.

6. To inform themselves on all matters pertaining to medical education.

7. To carry out the instructions of the House of Delegates in matters of medical education.

8. To make a full report of their work to the House of Delegates at each annual meeting.

Believing, as did the founders of this Association, that one of the most important functions of the American Medical Association is the elevation and supervision of medical education in this country, your committee ask for your careful consideration of this subject, and urge prompt and effective action along the lines suggested.

On motion of Dr. H. O. Walker, Michigan, the report was referred to the Business Committee.

Amendments to the By-laws.

The next order was the consideration of amendments offered at the last meeting.

Dr. Moyer, Illinois, read the original section of Article 4, Chapter 7 of the By-Laws, regarding the Committee on Nominations. He also read the proposed substitute for it, as follows:

Nominations for officers shall be by informal ballot in the House of Delegates, unless otherwise ordered, by a majority of the delegates present when such nominations are made. Twenty votes shall be necessary to nominate them, and after the nominations are made, the balloting shall continue until some nominee has received a majority of the votes present. After the second formal ballot the nominee receiving the lowest number of votes shall be dropped, and so on in each successive ballot until an election is had.

On motion of Dr. McCormack this amendment was adopted.

On motion of Dr. McCormack other pending amendments were referred to the Business Committee.

The President called for the report of the Committee on Organization.

Dr. McCormack, Kentucky, chairman, asked for further time, as the committee was not ready to report, which was granted.

Report of the Committee on Association Medal.

Dr. L. S. McMurtry, Kentucky, presented a verbal report of the Committee on Association Medal. He said the chairman of the committee who had preceded him had resigned the chairmanship at the last meeting of the Association. For some reason the committee has not been able to select a prize, and he did not know how successful the committee has been in having applications presented to them. Some time after the meeting at Saratoga he was notified by the Secretary that the President, Dr. Wyeth, had honored him with the chairmanship of the committee. He said there was nothing specific in the act creating the committee as to the conditions required of the essays that are presented or the line of investigation to which the essays shall be directed. There are no specific restrictions under which the award is made, and the committee has no authority under the law, by which it was created, to proceed in the matter. He had not been able to confer with his associates on the committee. He asked that the committee be empowered to go forward and to arrange specifications and details to have the work done, and to present the specifications in THE JOURNAL as soon as practicable after the meeting, so as to be able at the next meeting to present material that would be worthy of the award.

On motion of Dr. Vance, Kentucky, the committee was continued and given the power requested.

Report of the Committee on Senn Medal.

Dr. M. L. Harris, Illinois, a member of the Committee on Senn Medal, whose report was called for at this time, said he had been asked by Dr. Dunn, the chairman, who was unavoidably absent, to report the finding of the committee. The members of the committee had carefully considered all of the papers presented to them, and had unanimously found that no paper presented had met the requirements imposed on the awarding of the medal.

On motion the report was accepted.

Report of Committee on Rush Monument.

Dr. Henry D. Holton, Vermont, presented the report of the Committee on Rush Monument Fund as follows:

PHILADELPHIA, May 1, 1903.

To the President and Members of the American Medical Association.

Gentlemen: Your committee on the Rush Monument Fund reports as follows:

At the meeting at Columbus, Ohio, the resignation of the former chairman, Dr. Albert H. Gihon of the U. S. Navy, since deceased, was accepted, and Dr. J. C. Wilson of Philadelphia was appointed to the chairmanship of the committee. The committee at that time consisted of Dr. Henry D. Holton of Vermont and the chairman.

At the meeting at Atlantic City, on the request of the members of the committee as then organized, its membership was increased to five. Drs. Frank Billings of Chicago, Wm. L. Rodman of Philadelphia, and L. D. Bulkley of New York were added to the committee.

The funds in the hands of the treasurer of the committee at that time amounted to about $10,000. In addition to this there was $2,000 contributed by the profession of Pennsylvania, in the custody of Dr. Davis of Pittsburg, and a small sum amounting to about $60 in the custody of the treasurer of the Philadelphia County Medical Society.

Personal efforts were from time to time made by members of the committee to increase this fund, but without success, and various plans having the same end in view were discussed by the members of the committee. Among these were:

First, a further appeal to individual members of the Association and to the profession at large. It was felt that this plan would not prove acceptable and would probably not be attended by success.

Second, it was suggested that the committee should directly appeal to the Trustees of the American Medical Association for an appropriation to this fund, but conference with some members of the Board of Trustees made it evident that such an appeal could not be granted.

Third, and finally, your committee considered the question of appealing to the Congress of the United States for additional funds. This plan was abandoned because it seemed to the committee best that the memorial to Rush should be the direct gift of the profession to the people.

Several months ago it was determined by the committee to ascertain whether or not a suitable monument could be procured with the funds in hand, now amounting with interest approximately to $15,000. The result of negotiations on this subject were satisfactory and the committee has entered into a contract with the Henry Bonnard Bronze Co. of New York City, and through them with Louis R. Metcalfe, Esq., as architect, and R. Hinton Perry, Esq., as sculptor, to erect, on the site originally designated by the Secretary of the Navy on the elevation in the park opposite the U. S. N. Museum of Hygiene, 25th and E streets, Washington, D.C., a monument that shall be satisfactory to the committee and approved by the National Sculpture Society of New York City. This action on the part of your committee has been unanimous and has received the unofficial endorsement of a number of the members of the American Medical Association. It is hoped by the committee that it will receive the favorable consideration of the Association as a body and that the monument to be erected will be creditable as a work of art, an impressive ornament to the locality selected for it and an inspiring memorial of the

illustrious member of our profession whose career it commemorates.

Those who have undertaken the work have given reasonable assurance that the monument will be completed and ready for unveiling early in the autumn of the current year.

In conclusion your committee offers the following resolution: That a sum not exceeding $500 be placed to the credit of the committee to defray expenses incidental to the unveiling of the monument, any portion of this sum not being expended to be returned to the treasury of the Association.

All of which is respectfully submitted.

HENRY D. HOLTON, Treasurer.
J. C. WILSON, Chairman.

HENRY D. HOLTON, TREASURER.

In account with Rush Monument Fund.

June 1, 1902—

Cash on hand	$ 219.35
Funds invested in stocks and bonds	12,200.00
Dividends received	417.00
Dividends due June 1, 1903	200.00
Due from Pennsylvania Medical Society	2,00.00
Interest	
	$15,036.35

It was moved by Dr. John B. Roberts, Pennsylvania, that the report be accepted and referred to the Board of Trustees with the recommendation that funds be appropriated as asked for. Carried.

Appointment of Enlarged Committee on Revision of Principles of Ethics.

Dr. Moyer, speaking on behalf of the Business Committee, in reference to the report of the Committee on Revision of Code of Ethics, said that the committee recommends that the report, together with the substitute proposed and all matters pertaining thereto, be referred to the larger committees, consisting of a representative from each state that is not now represented, to be appointed by the President, said committee to meet immediately after the adjournment of the House of Delegates for organization.

Dr. McCormack, Kentucky, moved that the larger committee be composed exclusively of members of the House of Delegates. Seconded and carried.

The President thereon appointed the following committee:

Alabama—W. H. Sanders.	Missouri—J. N. Jackson.
Arizona—I. W. Craig.	Montana—T. J. Murray.
Arkansas—J. A. Dibrell.	Nebraska—A. B. Anderson.
California—C. G. Kenyon.	New Hampshire—I. J. Prouty.
Colorado—J. N. Hall.	New Jersey—Charles J. Kipp.
Connecticut—C. S. Rodman.	New Mexico—J. F. McConnell.
Delaware—G. W. Marshall.	North Carolina—E. C. Register.
Dist. of Columbia—G. M. Kober.	North Dakota—E. M. Darrow.
Florida—R. D. Murray.	Ohio—C. A. L. Reed.
Georgia—F. W. McRae.	Oregon—
Illinois—Frank Billings.	Pennsylvania—John B. Roberts.
Indiana—Edwin Walker.	Rhode Island—John Champlin.
Indian Territory—B. F. Fortner.	South Carolina—Geo. R. Drau.
Iowa—Samuel Bailey.	South Dakota—W. J. Matum.
Kansas—J. E. Minney.	Texas—H. A. West.
Kentucky—Ap Morgan Vance.	Utah—A. C. Ewing.
Louisiana—Rudolph Matas.	Vermont—D. C. Hawley.
Maine—S. C. Gordon.	Virginia—Stuart McGuire.
Massachusetts—H. E. Marion.	Washington—P. W. Willis.
Michigan—T. A. Felch.	West Virginia—L. D. Wilson.
Minnesota—William Davis.	Wisconsin—W. T. Sarles.
Mississippi—J. C. Hall.	Wyoming—Geo. W. Johnston.

Money for Committee on Scientific Research.

Dr. E. E. Montgomery, Pennsylvania, reported on behalf of the Board of Trustees in regard to the resolution submitted in connection with the report of the Committee on Scientific Research. He said the Board of Trustees moved that the money should be appropriated when the report has been made and accepted by the Association, said report to be the property of the Association.

On motion of Dr. H. Bert Ellis, the report was adopted.

Dr. McCormack moved, in accordance with an announcement made in THE JOURNAL, that to-morrow afternoon be set apart for receiving the reports of delegates in the matter of organization in their respective states, and that it be made the special order, after the reading of the minutes.

On motion the House of Delegates then adjourned until 9 a. m. Wednesday.

WEDNESDAY, MAY 6, FOURTH MEETING.

The House of Delegates met at 9:10 a. m. and was called to order by the President.

A quorum was present when the roll was called.

The Secretary read the minutes of the previous meeting, which were approved.

Dr. Moyer, Illinois, on behalf of the Business Committee, reported the order of business for the meeting, and on motion of Dr. Sarles, Wisconsin, the report of the committee was adopted.

Education Committee's Report Accepted and Ordered Printed.

Dr. Moyer, Illinois, reported that the Business Committee had considered the report of the Committee on Education, and begged leave to report as follows: The committee recommends the adoption of the report, and that it be referred to the Board of Trustees, with the endorsement of the House of Delegates.

Dr. Ellis, California, moved the adoption of the report of the Business Committee. Seconded.

Dr. Edwin Walker, Indiana, moved to amend that the report be received, referred to the Board of Trustees, and be printed for circulation. Seconded.

The motion as amended was carried.

Action Postponed on Bureau of Medicines and Foods.

Dr. Moyer stated that the committee had considered the report of the Provisional Committee on the Establishment of a National Bureau of Medicines and Foods, and felt that the report, as submitted, was so vague in its provision, so meager in detail, that it recommends it be not adopted. The committee recommends that the whole matter be referred to the legislative committee, to report at the next annual session.

It was moved that the recommendation of the Business Committee be concurred in. Seconded.

After some discussion, which was participated in by Dr. Jones, California, and Dr. Moyer, Illinois, Dr. Harris, Illinois, moved that the matter be recommitted to the original Provisional Committee on the Establishment of a National Bureau of Medicines and Foods.

This motion was seconded and carried.

Manila Medical Society Admitted.

Dr. Moyer said the Business Committee had considered the Secretary's report and begged leave to report on certain items, as follows: That the Manila Medical Society be accorded representation on the same basis as a state or territory, providing that their organization be extended to include the Island of Luzon, and such other portions of the Philippines as may organize local medical societies.

It was moved and seconded that the recommendation of the Business Committee be adopted. Carried.

Department of the Interior To Be Represented.

Dr. Moyer stated that the committee recommends that the Secretary be instructed to correspond with the Interior Department, and advise the House of Delegates at the next annual session, with a view of according this service specific recognition.

On motion, the recommendation was concurred in.

Delegate to Canadian Medical Association.

The Business Committee recommends that the President appoint a delegate to represent the American Medical Association at the thirty-sixth annual meeting of the Canadian Medical Association. On motion, the recommendation was adopted.

Secretary's Report Adopted.

The Business Committee recommends the adoption of the report of the Secretary.

It was moved that this recommendation of the Business Committee be adopted. Carried.

Dr. McCormack Praised.

The Business Committee recommends the expression of appreciation of the services of Dr. J. N. McCormack, in reorganizing the profession; it further recommends to the Board of Trustees, a continuation of those services, if Dr. McCormack can be persuaded to continue with the work.

On motion, these recommendations were adopted.

Permanent Committee on Place of Annual Session.

With reference to the item contained in the President's address, in regard to the place of holding the next meeting, the

Business Committee recommends that it be referred to the Committee on Transportation and Place of Session, and that this committee be made a permanent one with the duties suggested by the President.

It was moved that this be adopted. Carried.

Regarding that part of the President's address concerning papers offered in the Section on Materia Medica, Pharmacy and Therapeutics, the Business Committee recommends that it be referred to the Committee on Sections and Section Work.

On motion, the recommendation was concurred in.

Committee on Memorial to Major Walter Reed.

The Business Committee recommends the appointment of a committee of three of the House of Delegates to co-operate with other bodies looking toward placing a suitable memorial in Washington, D. C., commemorating the scientific achievements of Major Walter Reed.

On motion, this recommendation was adopted.

Consideration of Standing of Dental and Pharmaceutic Members.

In reference to the Section on Stomatology, Dr. Moyer, speaking for the Business Committee, said there were two amendments to the Constitution which were proposed last year, and which the Committee had elaborated, and which it recommended for adoption.

Dr. John B. Roberts, Pennsylvania, moved that the amendments be taken up. Carried.

Dr. Moyer then read the following:

Amend Section 6, Article 3, with a section as follows:

DENTAL ASSOCIATE MEMBERS: Dentists who hold the degree of D.D.S. from a reputable dental college, and who are members of recognized local and state dental societies, may be admitted as associate members, on recommendation of the officers of the Section, subject to approval by a majority vote of the members of the Section.

The Business Committee moved, as an amendment to Section 7, Chapter 1, of the By-laws, the following:

PHARMACEUTIC ASSOCIATE MEMBERS: Pharmacists who are recognized graduates of pharmaceutic schools or colleges and are members of the American Pharmaceutical Association, may be admitted as associate members, on recommendation of the officers of the Section on Materia Medica, Pharmacy and Therapeutics, subject to approval by a majority vote of the members of the Section.

It was moved that the amendment recommended by the Business Committee in regard to associate dental members be adopted. Carried.

It was moved that the amendment in reference to associate members of pharmacy be adopted. Seconded.

Dr. Hill, Wisconsin, moved, as a substitute, that action on the amendment of the Business Committee, in reference to associate members of pharmacy be postponed until the committee had received a recommendation from that section. Seconded and carried.

[Both of the above amendments were revised later.]

Minor Amendments to Constitution.—Under the head of proposed amendments, Dr. Moyer said the first amendment is in regard to Section 1, Article 4, of the Constitution, as follows: After the word "service" at the end of paragraph, add

And (4) the officers of the Association.

He said the Business Committee recommended as a substitute for that this wording, to follow the word "service":

The Board of Trustees shall be members of the House of Delegates, but shall not vote.

On motion of Dr. McCormack, this recommendation was adopted.

The next amendment relates to Article 8, Section 4, as follows: Strike out all after the word "to" in the second line, and insert:

The office of President or Vice-President.

The Business Committee recommended the adoption of this amendment, and on motion the recommendation was concurred in.

A third amendment was with reference to Section 3, Chapter 9, of the By-laws. The committee reported, as a substitute, that the wording of this section read:

Each Section shall have the privilege of sending to the House of Delegates one delegate.

On motion of Dr. McCormack the amendment was adopted.

The next amendment related to Section 5, Chapter 3, of the By-laws.

The Business Committee recommended that this section be repealed.

It was moved that this recommendation be adopted. Carried.

Quorum of the House Defined.—The next amendment related to Section 10, Chapter 3, namely, to strike out the word "majority" and insert the word "twenty-five" in its place. The section would then read:

Twenty-five members composing the House of Delegates shall constitute a quorum for the transaction of business; provided, that at any adjourned session of any annual meeting, ten members shall constitute a quorum.

It was moved that the amendment be adopted. Seconded.

Dr. Bishop, Pennsylvania, suggested that the amendment read:

Twenty-five delegates representing states.

Dr. Wall, Buffalo, offered as an amendment the following addition:

Such adjourned meeting shall not initiate new business or change that which has been adopted.

Seconded.

Dr. Bert Ellis, California, moved that the amendment be referred back to the Business Committee. Carried.

The next amendment related to Section 3, Chapter 9, of the By-laws. At present it reads:

In each Section a nominating committee of three members shall be elected by open ballot on the first day to make nominations for Section officers.

The Business Committee recommended that this amendment to the By-laws be sent to the Committee on Sections and Section Work for consideration and report.

On motion, the recommendation was adopted.

House of Delegates Meetings Defined.—Amendment to Section 3, Chapter 8, of the By-laws. The present section reads:

The House of Delegates shall hold its first meeting of each annual session at 2 p. m. of the first day, and on subsequent days, at such time as may be necessary to complete its business, provided that it shall not meet at hours that will conflict with the general meetings of the Association.

The proposed amendment is:

The House of Delegates shall meet at 10 o'clock on the day before that fixed as the first day of the annual session. It may adjourn from time to time as may be necessary to complete its business, provided, that it shall not meet at hours that conflict with the general meetings of the Association.

The Business Committee reported favorably on this amendment, and recommended its adoption.

On motion, the recommendation was adopted.

Limiting Number of Section Papers.—Amendment to Section 5, Chapter 9 of the By-laws:

The number of papers on the program of any Section shall not exceed forty. No member shall read papers before more than two Sections at any session, and these papers must be on different subjects.

The Business Committee recommended the adoption of this amendment, and on motion the recommendation was concurred in.

Report of Committee on Legislation.

Dr. H. L. E. Johnson, Washington, D. C., presented the report of the Committee on Legislation, as follows:

The Committee on Legislation has the honor to make the following report for the year ending May, 1903: During the last session of the National Congress an antivivisection bill was introduced in the Senate, and your committee, acting promptly, secured sufficient support to impede effectually its official consideration and prevent its passage by that body. We respectfully ask the Association to approve our action on this measure, and disapprove the introduction of this or similar bills or measures in the future.

Under the present Constitution and By-laws your committee is regulated by the following:

The committee on legislation shall report to the House of Delegates at each annual session its proceedings during the previous year, and recommend such action in respect to pending legislation as it shall deem proper. [See page 11, Constitution and By-laws.]

We regret very much the limitations placed on this committee by the above, and respectfully suggest legislation by the House of Delegates which will give the Committee on National Legislation more latitude and authority in dealing with medical legislation, both state and National.

Respectfully submitted, H. L. E. JOHNSON, Chairman.

On motion of Dr. McCormack, the report was referred to the Business Committee.

Report of Committee on Scientific Exhibit.

Dr. Frank B. Wynn, Indiana, presented the report of the Committee on Scientific Exhibit:

The chairman's address before the Section on Pathology and Physiology a year ago was devoted largely to a consideration of the future of the Pathologic Exhibit. It was recommended that the name be changed to Scientific Exhibit and that the work be placed in entire charge of a director, who should be selected by the Board of Trustees and paid reasonable compensation for his services. Your honorable body took favorable action on these recommendations, but suggested for good reason a postponement of the selection of a director for one year. The present Scientific Exhibit, therefore, was prepared under the old régime and has not been without embarrassments. With less than three months' time in which to accomplish the labor the committee has met the frequent excuse of lack of time; others have protested against taking material to so remote a point, insisting that territory contiguous to the place of meeting should provide the exhibit. Despite the remoteness of the meeting place from sources of pathologic supply, the loyal, saving remnant of the profession has come nobly to the rescue. It is a pleasure to place on this roster of honor the following names:

W. S. Thayer, Thomas S. Cullen, and Harry T. Marshall, Baltimore; E. R. LeCount, Winfield S. Hall, F. Robert Zeit, W. T. Eckley, James Nevins Hyde, F. H. Montgomery, L. E. Schmidt, and —— Harris, Chicago; Willard Bartlett, W. J. Calvert, St. Louis; O. L. Pothier, New Orleans; Frank B. Wynn and J. S. Wright, Indianapolis; H. J. Whitacre, John Miller and M. L. Heidingsfeld, Cincinnati; Calvin DeWitt, Washington; George Adami and M. E. Abbott, Montreal; E. B. Barnett, Havana; Jay F. Schamberg and Mihran K. Kassabian, Philadelphia; Robert Winthrop Gillman, Detroit; H. D. Valin, St. Peter, Minn.; and W. S. Carter, Galveston.

It is not the province of this report to deal with the details of the Exhibit. Particulars will appear at a later date. It is sufficient to say that in point of excellence and efficiency the collection equals any previously given. Thirty odd exhibitors are participants. Especially to be thanked are those from distant points. In the list are to be noted those of national distinction as well as younger men fired with the true zeal, and laying the foundation for achievement in scientific medicine.

It has been found from experience that $500 is ample to cover the expense of the Scientific Exhibit if economically administered. It is recommended that this sum be appropriated annually.

All true physicians contribute more or less to the public weal in matters of hygiene and sanitary science. The ethical spirit prompts us to share without money and without price whatever knowledge we may gain in the healing of the sick. A small band is always to be found within our ranks, earnest, unselfish and untiring; willing to sacrifice time, labor and money in the furtherance of the higher ideals in medicine. Such make possible the Scientific Exhibit. To them are due not alone the praise of "well done," but the moral and material support of this body.

Following the natural and desirable tendency, the effort has been to condense and specialize the Exhibit with reference to location of the meeting places and topics to be prominently considered in the section work. With that end in view tropical diseases have received particular attention. Fine groups of specimens are shown, illuminating amebic and bacillary dysentery and excellent series of tuberculous and typhoid lesions for purposes of differentiation from the former. Excellent series are also shown illustrating malaria, yellow fever and plague. Related to surgery are very complete groups illustrative of surgical diseases of the kidney, bladder and prostate gland. Gynecologic effort has been directed toward the illumination of fibroid tumors and ectopic gestation. The realm of otology is represented by a fine series related to mastoid disease. The dermatologic group is directed chiefly to the illumination of the exanthemata. Besides these groups there are shown a large number of rare and beautiful miscellaneous specimens. Noteworthy exhibits are presented showing apparatus and the work of medical students as conducted under the most approved modern methods. The latter include physiologic experimentation and studies in clinical diagnosis, particularly with reference to the excreta.

It is deeply to be regretted that it has not been possible to arrange for the demonstration of the specimen groups before the respective sections, at stated hours, indicated on the published program. Most certainly this should be done in the future. In the preparation of the annual program, a competent director, in conjunction with the section officers as an advisory committee, will be able to correlate the work of the Exhibit with that of the sections. He will vary the character of the Exhibit from year to year, according to the place of meeting, tendencies in the medical world and to suit the topics of importance to come before the various sections. By this means the Scientific Exhibit will be made practically effective and the Association membership will come to realize that it is not, as many are prone to suppose, a mere adjunct of the Section on Pathology and Physiology, but belongs to the whole Association; that it is a valuable practical feature of the organization in which all reap profit. Further than mentioned it will fall to the director of the Exhibit to see that carefully prepared data are submitted with specimens and demonstrations. He should edit the same for publication and preservation in the archives of the Association. A small volume might be published each year containing a catalogue of the exhibits, clinical and descriptive data, plates, etc., which would become valuable for purposes of reference. Funds might with propriety be placed in his hands for the encouragement of research exhibits.

As stated on a previous occasion the Scientific Exhibit is in harmony with the spirit of the age which demands brevity; calls for facts rather than theories, and deeds rather than words. Contact of the man of pure science with him who applies scientific knowledge to practice, will tend to prevent narrowness and antagonisms on the one hand, and on the other prove conducive to harmony and mutual upbuilding. The mission of the physician is to minister to the suffering and heal the sick. Of this cardinal fact scientists should not lose sight. And on the part of clinicians there is need of appreciating more fully the great assistance afforded them by a practical knowledge of pathology and physiology. Whether a specimen be presented in the exhibit of the American Medical Association, in the state medical society or in a county medical society, the practical lesson taught is the same. Summed up it is that a practical knowledge of pathology constitutes the most substantial basis for skill in diagnosis. The physician reading a paper, reporting a case or presenting a specimen is, to be sure, rendering a service to his colleagues. He confers on himself a much greater benefit. The knowledge begotten in the labor becomes a joy and a blessing like his own child. This, and the consciousness of high purpose and duty well done, are the rewards of the scientific worker, which, in a measure, compensate for the meager financial return which is too often his lot.

Dr. Bishop, Pennsylvania, moved that the report be referred to the Business Committee; that this committee make its recommendation, then refer the report to the Board of Trustees and obtain a report of the board, so that the two reports can be made at one time, and thus save much time. Carried.

Report of Judicial Council.

Dr. N. S. Davis, Jr., Illinois, read the report of the Judicial Council, as follows:

The Judicial Council reports that letters were read from J. Austin Willis of Oakland, Cal., and from W. T. Salmon of Oklahoma City, and from doctors of San Diego, Cal., signed by J. C. Hearne and others. These letters asked for decisions on hypothetical cases. The council can only consider genuine cases properly referred to it; therefore, on motion, the council voted that the above letters of inquiry be referred back to the writers, and recommends that such matters should come through the county and state societies.

PHILIP MARVEL, Chairman.

Report of Committee on Public Health.—The President called for the report of the Committee on Public Health.

Dr. H. A. West, Texas, a member of this committee, said that the duties of this committee were not well defined. In his correspondence with the chairman of the committee, his suggestion was, that matters concerning the public health should be referred to this committee, and that the committee was to serve merely in an advisory capacity as to the work to be referred to it.

Five Dentists Made Associate Members.—Dr. A. E. Baldwin, Illinois, in accordance with amendment to Section 5, Article 4, of the Constitution, in regard to associate members, recommended that the following be made associate members of the Section on Stomatology: C. V. Vignes, C. Edmund Kells, Paul de Verges, Jules J. Sarrazin, **E. T. Belden.**

On motion the Committee on Organization was authorized to codify the Constitution and By-laws and to correct any typographic errors contained therein.

Dr. M. L. Harris, Illinois, offered the following amendments:

Amendment to Chapter 12, Section 2, by eliminating the section in its entirety.

Article 11 and Chapter 14 should each read:

Three-fourths of the members present.

Article 9:

The House of Delegates may recommend the appropriation of funds in accordance with, etc.

Moved to amend the Constitution and By-laws, so as to place the Association on the assessment plan, in accordance with the plan already adopted by many of the state societies.

The Sanders Resolutions on Public Health System.

Dr. W. H. Sanders offered resolutions, which were referred to the Business Committee:

WHEREAS, The protection of the people from disease is the greatest aim of all true physicians; therefore, be it resolved by the American Medical Association.

1. That to formulate a complete, coherent, and constitutional public health system for this country be declared one of the most important achievements to which this body can devote itself.

2. That immediate steps be taken to construct such a system, and to submit it for adoption by the people of the states and of the nation.

To Have Standing Committee Reports Printed Before Session for Distribution.

Dr. Edwin Walker, Indiana, offered the following:

Resolved, That all reports of standing committees shall be transmitted to the Secretary ten days before the annual session of the House of Delegates, and that all such reports shall be presented for distribution to the members of the House of Delegates.

This was referred to the Business Committee.

Association Petitions President Roosevelt to Appoint Medical Officer on Isthmian Canal Board.

Dr. W. H. Welch, Baltimore, introduced the following:

Inasmuch as the construction of the Isthmian Canal is through a region in which, without energetic sanitary control there is sure to be enormous loss of human life from preventable diseases, particularly from pernicious malaria, and yellow fever, as well as great waste of energy and of money from disabilities caused by such diseases; and inasmuch as the measures for the restraint of these diseases, which have already achieved even their extermination in Cuba under American administration, require expert knowledge, based on practical familiarity with tropical diseases, experience in the application of these measures, and large authority in their administration, therefore,

Resolved, That the American Medical Association begs most respectfully and earnestly to call to the attention of the President of the United States the importance of appointing as a member of the Isthmian Canal Commission a medical man possessed of the qualifications indicated. The Association is convinced that the mere employment of such a sanitary expert by the Commission will not be likely to secure the desired results.

Resolved, That the Secretary of the Association transmit a copy of these resolutions to the President of the United States.

This was referred to the Business Committee.

On motion of Dr. Le Grande, Alabama, the Committee on Transportation and Place of Session was urged to have its report ready for presentation the first thing to-morrow morning.

Dr. Moyer, Illinois, said the Business Committee had neglected to recommend the adoption of the President's report. He moved that the report be adopted. Carried.

On motion of Dr. McCormack, Kentucky, secretaries of their respective state societies were invited to be present to discuss the subject of organization at the afternoon session and that, in the absence of the secretary, the president of the state society be invited to do so. Carried.

On motion the house then adjourned until 2 p. m.

WEDNESDAY, MAY 6—FIFTH MEETING.

The House of Delegates reconvened at 2:30 p. m., and was called to order by the President.

The Secretary called the roll, and there was a quorum present.

The Business Committee reported the order of business for the meeting, and on motion the report was accepted.

Pharmacists Again Considered.—Dr. Moyer, Illinois, speaking for the Business Committee, said that the committee had considered the amendment to Article 3, Section 7, of the By-laws, which was referred back to it, on pharmaceutic associate members, and begged leave to report as follows: The committee moves to amend, by striking out the words "graduates of recognized pharmaceutic schools and colleges" and inserting the word "reputable" before the word "pharmacists." The committee recommended this for adoption and, on motion of Dr. Hill, Wisconsin, the recommendation was concurred in. [See further modification below.]

Regarding the second amendment referred back to the Business Committee, which relates to Chapter 3, Section 10, of the By-laws, the committee recommended substituting the words "twenty-five of the voting members," so that the section, as amended, shall read:

Twenty-five of the voting members composing the House of Delegates shall constitute a quorum for the transaction of business, provided, that at adjourned session, of any annual meeting, ten members shall constitute a quorum.

The committee also recommended the addition of these words:

Such adjourned meeting shall not initiate new business or change that which has been adopted.

On motion of Dr. Wall, Buffalo, the recommendations of the committee were concurred in.

Dr. Moyer, speaking for the Business Commitee, said the report from the Section on Stomatology, in reference to associate members, required no action; that the adoption of the by-law, in reference to associate members, made them members in accordance with its provisions, if properly elected by the Section.

Isthmian Canal Resolutions Adopted.

The Business Committee reported favorably on the resolution offered by Dr. William H. Welch in reference to the sanitary construction of the Isthmian Canal, and recommended for adoption the resolution.

The recommendation was concurred in and, on motion of Dr McCormack, the resolution adopted.

In reference to the resolution offered by Dr. W. H. Sanders, Alabama, the committee recommended that it be referred to the Committee on Public Health, and on motion it was so ordered.

Printed Reports Adopted.

With reference to the resolution offered by Dr. Edwin Walker, Indiana, the Business Committee recommended that it be adopted; that the Secretary instruct the various committees to transmit their reports to him ten days before the annual session, that they may be printed.

On motion the recommendation was agreed to.

Legislation on Antivivisection Endorsed.

In reference to the first part of the report of the Committee on Legislation, which deals with the antivivisection bill, the Business Committee recommended it for adoption. The committee felt that this should be adopted, with the strongest possible endorsement by the House of Delegates.

On motion the recommendation of the Business Committee was adopted.

Dr. Moyer then offered the following resolution on behalf of the Business Committee:

Resolved, That the American Medical Association approves the action of its committee in defeating the antivivisection bill recently pending before Congress, and that Congress be strongly urged to give no further consideration to legislation of that character in the future.

Seconded and carried.

Regarding the remaining portion of the report of the Committee on Legislation, which relates to the somewhat anomalous position in which the committee finds itself, the Business Committee recommended that this part of the report be referred back to the Committee on Organization and Codification of the Constitution and By-laws.

On motion the recommendation was adopted.

Dr. Wall, New York, introduced the following resolution:

Resolved, It shall be a standing rule of the Association that no amendment or change in the Constitution and By-laws shall be acted on until it shall have been presented at a previous annual session.

This was referred to the Business Committee.

Report of Organization Committee—Forty-Four State Representatives Report.

Dr McCormack, Kentucky, chairman, read the report of the Committee on Organization.

At the conclusion of the report, representatives of forty-four states and territories made brief but very encouraging reports of the excellent work that is being done in reorganizing the medical profession throughout the country.

On motion the report of the Committee on Organization and the reports made by representatives of the respective states and territories were adopted, and a vote of thanks extended to the chairman, Dr. McCormack.

Money for Committee on Organization.

Dr. Charles A. L. Reed offered the following resolution, which was adopted:

Resolved, That with the concurrence of the Board of Trustees, $500, or so much thereof as may be necessary, shall be appropriated from the treasury, to pay the necessary expenses of the Committee on Organization.

On motion the House of Delegates then adjourned until 9 a. m., Thursday.

THURSDAY, MAY 7—SIXTH MEETING.

The House of Delegates met at 9:20 a. m. and was called to order by the President.

The Secretary called the roll, and there was a quorum present.

The Secretary read the minutes of the two previous meetings, which, after some corrections had been made, were approved.

Dr. Moyer, Illinois, representing the Business Committee, reported on the order of procedure for the day, and on motion the report was adopted.

The Business Committee requested that the amendments to the By-Laws which were adopted relative to dental and pharmaceutic associate members be sent back to the committee for further consideration.

Dr. Moyer, Illinois, moved that the vote by which these amendments were adopted at a previous meeting be reconsidered. Carried.

Dr. Moyer, Illinois, then moved that the amendments be referred back to the Business Committee for further consideration. Carried.

Appropriation for Scientific Exhibit.

The Business Committee, to which was referred the matter of Scientific Exhibit, with instructions that the committee confer with the Board of Trustees relative to an appropriation necessary to continue the work of that committee, reported that the committee had had a conference and the trustees had advised that an appropriation not to exceed $500 be made and that, further, the Board of Trustees recommend the adoption of the committee's report.

It was moved and seconded that the recommendation of the Business Committee and of the Board of Trustees be adopted. Carried.

Amendments Must Lie Over One Year.

In reference to the standing resolution offered by Dr. Wall, Buffalo, at the last meeting, the committee begs to report favorably and to offer the following resolution:

Resolved, It shall be a standing rule of the Association that no amendment or change in the Constitution or By-Laws shall be acted on unless it shall have been presented at a previous annual session.

The committee moved its adoption. Seconded and carried.

Congress on Venereal Diseases at St. Louis Fair in 1904.

The Business Committee had considered carefully the question of the report of the Committee on Prophylaxis of Venereal Diseases and the proposal to hold a congress during the Louisiana Purchase Exposition and reported favorably on the report of the committee. Furthermore, the committee offered the following resolution:

1. The present Committee on Prophylaxis of Venereal Diseases to be continued and act as the central committee.
2. A co-operative committee be created, composed of one member for each state, to be appointed by the president of each state medical organization.
3. This central committee, with the approval of the co-operative committee, be authorized to organize and provide for a Congress for the Prophylaxis of Venereal Diseases during the existence of the Louisiana Purchase Exposition, to be held at St. Louis, with representatives of the Army, Navy and Public Health Service.
4. The central committee, with the approval of the co-operative committee, be directed to select officers to be presented to the proposed congress for action.
5. Each member of the co-operative committee is directed and expected to create an interest in his own state in the proposed congress.
6. The central committee is authorized to select from the officers of the Louisiana Purchase Exposition a suitable place for the meetings of the congress.
7. The legislative committee of the American Medical Association, in Washington, is directed to seek to secure an appropriation from the Congress of the United States of $5,000 for the expenses of the proposed congress.
8. A sum not to exceed $500 is recommended to be appropriated by the Board of Trustees of the American Medical Association for the expenses of the preparation of this congress, as proposed at the meeting of the House of Delegates Monday afternoon, May 4.

The Business Committee moved the adoption of the report of the committee, and on motion the report and resolution were adopted.

Dental and Pharmaceutic Members Provided For.

Dr. Moyer said the Business Committee was prepared to report in regard to the amendment to the By-Laws concerning dental members. He said they were described as "dental associate members." This was a mistake. They should be known simply as "dental and pharmaceutic members." The Association had associate members who should be kept distinct, and the word "associate" following the words "dental and pharmaceutic" was unnecessary. The amended section reads:

Article 3, Section 6. DENTAL MEMBERS.—Dentists who hold the degree of D.D.S. from a reputable dental college and who are members of a recognized local or state dental society, may be admitted as dental members on recommendation of the officers of the Section on Stomatology and approval by a majority vote of the Section, the names of such members to be sent to the Secretary by the Secretary of the Section.

The Business Committee moved the adoption of this amendment. Carried.

Regarding Article 3, Section 7 of the By-Laws, the Business Committee recommended the following amendment, which was adopted:

Reputable pharmacists may be admitted as pharmaceutic members on recommendation of the officers of the Section on Materia Medica, Pharmacy and Therapeutics, subject to approval by a majority vote of the members of the Section, the names of such members to be sent to the Secretary by the Secretary of the Section.

Supplementary Report of the Board of Trustees.

Dr. T. J. Happel, president of the Board of Trustees, said: I wish to make a supplementary report of some of the work done by the Board of Trustees since the meeting of the Association in regard to matters that should be reported to the House of Delegates.

MONEY FOR SCIENTIFIC RESEARCH.

1. We have had presented to us several accounts. Five hundred dollars was asked for by the House of Delegates, to be appropriated for the use of the Committee on Scientific Research. The action of the Board of Trustees in regard to that matter is that the money has not yet been earned by the parties to whom the work has been assigned, but it will be paid when certified to properly by the chairman of the Committee on Scientific Research and presented to the chairman of the Board of Trustees.

SECTION SECRETARIES' EXPENSES ALLOWED.

2. Bills have been presented to the Board of Trustees, through the House of Delegates, from the secretaries of sections, ranging in amount from the sum of $4 up to a maximum of $15. These have been allowed and will be paid.

NATIONAL ORGANIZER CONTINUED.

3. The Board of Trustees would report that Dr. J. N. McCormack has been continued as organizer for the next twelve months on terms satisfactory to himself and the Board of Trustees.

UNVEILING RUSH MONUMENT.

4. In regard to the Rush monument, the board has been asked for an allowance of $500, or not to exceed that amount, to be used in defraying the expenses of unveiling the Rush monument. The board has willingly and gladly appropriated that sum which has been asked for, but not to exceed $500.

INDEFINITE APPROPRIATIONS BARRED.

5. The Board of Trustees wishes to emphasize a matter that is mentioned in its report which has been presented in printed form, namely, that no indefinite appropriation will be made by the Board of Trustees. In case a committee is appointed to do work and there is not a specific sum of money stated as an approximate amount to be expended by such committee, the board will not be authorized to meet any expenses connected with it. The board does not wish to be considered arbitrary in such matters, but, as custodians of the funds, the board wishes a limitation fixed by the House on any appropriation, and then it will be acted on.

COMMITTEE ON FOOD AND DRUGS BILL.

6. A bill was presented to the Board of Trustees by Cooley, Lewis & Elgas, attorneys, for legal opinion on account of the Committee on Food and Drugs on the question of the legality to elect trustees of the proposed corporation until such persons have been selected by the American Medical and the American Pharmaceutical Associations. The board can find no record of having appropriated money for securing legal opinion for this purpose, hence this account is disallowed.

SUPPLY OF THE NEW BUTTONS.

7. In regard to the matter of buttons, we believe the House of Delegates has already adopted the suggestion made by the Board of Trustees in regard to the button, and the board has directed me to report that a supply of buttons will be made in accordance with the suggestions of the board. These buttons can be procured at an approximate cost by all who do not possess them, and on the terms the Editor has been sending them out.

8. The account in connection with the Committee on Reorganization has been allowed.

9. The Board of Trustees has continued the appropriation of $500 for the use of the Committee on Scientific Exhibit as heretofore.

On motion of Dr. Charles A. L. Reed, Ohio, the supplementary report of the Board of Trustees was adopted.

Report of the Committee on Medical Ethics.

The next order was the report of the Enlarged Committee on Revised Code of Ethics.

Dr. E. Eliot Harris, New York, read the following report:

To the President and Members of the House of Delegates of the American Medical Association:

Your enlarged Committee on Medical Ethics, consisting of the special committee and one delegate from each state, have unanimously adopted the following report, entitled the "Principles of Medical Ethics of the American Medical Association," which is herewith submitted.

The following report of the Special Committee shall be printed as an explanatory preface to the Principles of Medical Ethics of the American Medical Association.

Gentlemen: Your committee has given extended and careful thought to the proposed revision of the Code of Medical Ethics referred to it for consideration. As you will note on reference to the caption of the report the word "code" has been eliminated and the expression "Principles of Medical Ethics of the American Medical Association" adopted as adequately descriptive. In reference to this change, it is proper to say that such action on its part is based on the idea that the American Medical Association may be conceived to occupy some such relation to the constituent state associations as the United States, through its Constitution, holds to the several states. The committee, for this reason, regards it as wiser to formulate the principles of medical ethics, without definite reference to "code" or penalties, thus leaving the respective states, to form such code, and establish such rules as they may regard to be fitting and proper, for regulating the professional conduct of their members, provided, of course, that in doing so there shall be no infringement on the established ethical principles of this Association. The committee regard as wise and well intended to facilitate the business of the parent organization and promote its harmony this course which leaves to the state association large discretionary powers concerning membership and other admittedly state affairs. Your committee has retained, to a large extent, the phraseology of the existing code, while aiming at condensation of expression and a better understanding of some of its statements. The report of the committee has been reached unanimously, without dissension or distrust on the part of its members, each aiming to formulate a result based on principle alone, and without regard to any past or present disagreements or misunderstandings whatsoever; such being the case, the committee invites your candid and unprejudiced attention to the results of its labor, feeling that at least some good has been accomplished.

Respectfully submitted,

E. Eliot Harris, Chairman.
William H. Welch.
T. J. Happel.
Joseph D. Bryant.

Principles of Medical Ethics.

The American Medical Association promulgates as a suggestive and advisory document the following:

Chapter I.—The Duties of Physicians to Their Patients.

Section 1.—Physicians should not only be ever ready to obey the calls of the sick and the injured, but should be mindful of the high character of their mission and of the responsibilities they must incur in the discharge of momentous duties. In their ministrations they should never forget that the comfort, the health and the lives of those entrusted to their care depend on skill, attention and fidelity. In deportment they should unite tenderness, cheerfulness and firmness, and thus inspire all sufferers with gratitude, respect and confidence. These observances are the more sacred because, generally, the only tribunal to adjudge penalties for unkindness, carelessness or neglect is their own conscience.

Sec. 2.—Every patient committed to the charge of a physician should be treated with attention and humanity, and reasonable indulgence should be granted to the caprices of the sick. Secrecy and delicacy should be strictly observed; and the familiar and confidential intercourse to which physicians are admitted, in their professional visits, should be guarded with the most scrupulous fidelity and honor.

Sec. 3.—The obligation of secrecy extends beyond the period of professional services; none of the privacies of individual or domestic life, no infirmity of disposition or flaw of character observed during medical attendance should ever be divulged by physicians, except when imperatively required by the laws of the state. The force of the obligation of secrecy is so great that physicians have been protected in its observance by courts of justice.

Sec. 4.—Frequent visits to the sick are often requisite, since they enable the physician to arrive at a more perfect knowledge of the disease, and to meet promptly every change which may occur. Unnecessary visits are to be avoided, as they give undue anxiety to the patient; but to secure the patient against irritating suspense and disappointment the regular and periodical visits of the physician should be made as nearly as possible at the hour when they may be reasonably expected by the patient.

Sec. 5.—Ordinarily, the physician should not be forward to make gloomy prognostications, but should not fail, on proper occasions, to give timely notice of dangerous manifestations to the friends of the patient; and even to the patient, if absolutely necessary. This notice, however, is at times so peculiarly alarming when given by the physician, that its deliverance may often be preferably assigned to another person of good judgment.

Sec. 6.—The physician should be a minister of hope and comfort to the sick, since life may be lengthened or shortened not only by the acts but by the words or manner of the physician, whose solemn duty is to avoid all utterances and actions having a tendency to discourage and depress the patient.

Sec. 7.—The medical attendant ought not to abandon a patient because deemed incurable; for, continued attention may be highly useful to the sufferer, and comforting to the relatives, even in the last period of the fatal malady, by alleviating pain and by soothing mental anguish.

Sec. 8.—The opportunity which a physician has of promoting and strengthening the good resolutions of patients suffering under the consequences of evil conduct ought never to be neglected. Good counsels, or even remonstrances, will give satisfaction, not offense, if they be tactfully proffered and evince a genuine love of virtue, accompanied by a sincere interest in the welfare of the person to whom they are addressed.

Chapter II.—The Duties of Physicians to Each Other and to the Profession at Large.

ARTICLE I.—DUTIES FOR THE SUPPORT OF PROFESSIONAL CHARACTER.

Section 1.—Everyone on entering the profession, and thereby becoming entitled to full professional fellowship, incurs an obligation to uphold its dignity and honor, to exalt its standing and to extend the bounds of its usefulness. It is inconsistent with the principles of medical science and it is incompatible with honorable standing in the profession for physicians to designate their practice as based on an exclusive dogma or a sectarian system of medicine.

Sec. 2.—The physician should observe strictly such laws as are instituted for the government of the members of the profession; should honor the fraternity as a body; should endeavor to promote the science and art of medicine and should entertain a due respect for those seniors who, by their labors, have contributed to its advancement.

Sec. 3.—Every physician should identify himself with the organized body of his profession as represented in the community in which he resides. The organization of local or county medical societies, where they do not exist, should be effected, so far as practicable. Such county societies, constituting as they do the chief element of strength in the organization of the profession, should have the active support of their members and should be made instruments for the cultivation of fellowship, for the exchange of professional experience, for the advancement of medical knowledge, for the maintenance of ethical standards, and for the promotion in general of the interests of the profession and the welfare of the public.

SEC. 4.—All county medical societies thus organized ought to place themselves in affiliation with their respective state associations, and these, in turn, with the American Medical Association.

SEC. 5.—There is no profession from the members of which greater purity of character and a higher standard of moral excellence are required than the medical; and to attain such eminence is a duty every physician owes alike to the profession and to patients. It is due to the patients, as without it their respect and confidence can not be commanded, and to the profession because no scientific attainments can compensate for the want of correct moral principles.

SEC. 6.—It is incumbent on physicians to be temperate in all things, for the practice of medicine requires the unremitting exercise of a clear and vigorous understanding; and in emergencies—for which no physician should be unprepared—a steady hand, an acute eye, and an unclouded mind are essential to the welfare and even to the life of a human being.

SEC. 7.—It is incompatible with honorable standing in the profession to resort to public advertisements or private cards inviting the attention of persons affected with particular diseases; to promise radical cures; to publish cases or operations in the daily prints, or to suffer such publications to be made; to invite laymen (other than relatives who may desire to be at hand) to be present at operations; to boast of cures and remedies; to adduce certificates of skill and success, or to employ any of the other methods of charlatans.

SEC. 8.—It is equally derogatory to professional character for physicians to hold patents for any surgical instruments or medicines; to accept rebates on prescriptions or surgical appliances; to assist unqualified persons to evade the legal restrictions governing the practice of medicine; or to dispense, or promote the use of, secret medicines, for if such nostrums are of real efficacy, any concealment regarding them is inconsistent with beneficence and professional liberality, and if mystery alone give them public notoriety, such craft implies either disgraceful ignorance or fraudulent avarice. It is highly reprehensible for physicians to give certificates attesting the efficacy of secret medicines, or other substances used therapeutically.

ARTICLE II.—PROFESSIONAL SERVICES OF PHYSICIANS TO EACH OTHER.

SECTION 1.—Physicians should not, as a general rule, undertake the treatment of themselves, nor of members of their family. In such circumstances they are peculiarly dependent on each other; therefore, kind offices and professional aid should always be cheerfully and gratuitously afforded. These visits ought not, however, to be obtrusively made, as they may give rise to embarrassment or interfere with that free choice on which such confidence depends.

SEC. 2.—All practicing physicians and their immediate family dependants are entitled to the gratuitous services of any one or more of the physicians residing near them.

SEC. 3.—When a physician is summoned from a distance to the bedside of a colleague in easy financial circumstances, a compensation, proportionate to traveling expenses and to the pecuniary loss entailed by absence from the accustomed field of professional labor, should be made by the patient or relatives.

SEC. 4.—When more than one physician is attending another, one of the number should take charge of the case, otherwise the concert of thought and action so essential to wise treatment can not be assured.

SEC. 5.—The affairs of life, the pursuit of health and the various accidents and contingencies to which a physician is peculiarly exposed sometimes require the temporary withdrawal of this physician from daily professional labor and the appointment of a colleague to act for a specified time. The colleague's compliance is an act of courtesy which should always be performed with the utmost consideration for the interest and character of the family physician.

ARTICLE III.—THE DUTIES OF PHYSICIANS IN REGARD TO CONSULTATIONS.

SECTION 1.—The broadest dictates of humanity should be obeyed by physicians whenever and wherever their services are needed to meet the emergencies of disease or accident.

SEC. 2.—Consultations should be promoted in difficult cases, as they contribute to confidence and more enlarged views of practice.

SEC. 3.—The utmost punctuality should be observed in the visits of physicians when they are to hold consultations, and this is generally practicable, for society has been so considerate as to allow the plea of a professional engagement to take precedence over all others.

SEC. 4.—As professional engagements may sometimes cause delay in attendance, the physician who first arrives should wait for a reasonable time, after which the consultation should be considered as postponed to a new appointment.

SEC. 5.—In consultations no insincerity, rivalry, or envy should be indulged; candor, probity and all due respect should be observed toward the physician in charge of the case.

SEC. 6.—No statement or discussion of the case should take place before the patient or friends, except in the presence of all the physicians attending, or by their common consent; and no opinions or prognostications should be delivered which are not the result of previous deliberation and concurrence.

SEC. 7.—No decision should restrain the attending physician from making such subsequent variations in the mode of treatment as any unexpected change in the character of the case may demand. But at the next consultation reasons for the variations should be stated. The same privilege, with its obligation, belongs to the consultant when sent for in an emergency during the absence of the family physician.

SEC. 8.—The attending physician, at any time, may prescribe for the patient; not so the consultant, when alone, except in a case of emergency or when called from a considerable distance. In the first instance the consultant should do what is needed, and in the second should do no more than make an examination of the patient and leave a written opinion, under seal, to be delivered to the attending physician.

SEC. 9.—All discussions in consultation should be held as confidential. Neither by words nor by manner should any of the participants in a consultation assert or intimate that any part of the treatment pursued did not receive his assent.

SEC. 10.—It may happen that two physicians can not agree in their views of the nature of a case and of the treatment to be pursued. In the event of such disagreement a third physician should, if practicable, be called in. None but the rarest and most exceptional circumstances would justify the consultant in taking charge of the case. He should not do so merely on the solicitation of the patient or friends.

SEC. 11.—A physician who is called in consultation should observe the most honorable and scrupulous regard for the character and standing of the attending physician, whose conduct of the case should be justified, as far as can be, consistently with a conscientious regard for truth, and no hint or insinuation should be thrown out which could impair the confidence reposed in the attending physician.

ARTICLE IV.—DUTIES OF PHYSICIANS IN CASES OF INTERFERENCE.

SECTION 1.—Medicine being a liberal profession, those admitted to its ranks should found their expectations of practice especially on the character and the extent of their medical education.

SEC. 2.—The physician, in his intercourse with a patient under the care of another physician, should observe the strictest caution and reserve; should give no disingenuous hints relative to the nature and treatment of the patient's disorder, nor should the course of conduct of the physician, directly or indirectly, tend to diminish the trust reposed in the attending physician.

SEC. 3.—The same circumspection should be observed when, from motives of business or friendship, a physician is prompted to visit a person who is under the direction of another physician. Indeed, such visits should be avoided, except under peculiar circumstances; and when they are made, no inquiries should be instituted relative to the nature of the disease, or the remedies employed, but the topics of conversation should be as foreign to the case as circumstances will admit.

SEC. 4.—A physician ought not to take charge of, or prescribe for, a patient who has recently been under the care of another physician, in the same illness, except in case of a sudden emergency, or in consultation with the physician previously in attendance, or when that physician has relinquished the case or has been dismissed in due form.

SEC. 5.—The physician acting in conformity with the preceding section should not make damaging insinuations regarding the practice previously adopted, and, indeed, should justify it if consistent with truth and probity; for it often happens that patients become dissatisfied when they are not immediately relieved, and, as many diseases are naturally protracted, the seeming want of success, in the first stage of treatment, affords no evidence of a lack of professional knowledge or skill.

SEC. 6.—When a physician is called to an urgent case, because the family attendant is not at hand, unless assistance in consultation is desired the former should resign the care of the patient immediately on the arrival of the family physician.

SEC. 7.—It often happens, in cases of sudden illness, and of accidents and injuries, owing to the alarm and anxiety of friends, that several physicians are simultaneously summoned. Under these circumstances, courtesy should assign the patient to the first who arrives and who, if necessary, may invoke the aid of some of those present. In such a case, however, the acting physician should request that the family physician be called, and should withdraw unless requested to continue in attendance.

SEC. 8.—Whenever a physician is called to the patient of another physician during the enforced absence of that physician the case should be relinquished on the return of the latter.

SEC. 9.—A physician, while visiting a sick person in the country, may be asked to see another physician's patient because of a sudden aggravation of the disease. On such an occasion the immediate needs of the patient should be attended to and the case relinquished on the arrival of the attending physician.

SEC. 10.—When a physician who has been engaged to attend an obstetric case is absent and another is sent for, delivery being accomplished during the vicarious attendance, the acting physician is entitled to the professional fee, but must resign the patient on the arrival of the physician first engaged.

ARTICLE V.—DIFFERENCES BETWEEN PHYSICIANS.

SECTION 1.—Diversity of opinion and opposition of interest may, in the medical as in other professions, sometimes occasion controversy and even contention. Whenever such unfortunate cases occur and can not be immediately adjusted, they should be referred to the arbitration of a sufficient number of impartial physicians.

SEC. 2.—A peculiar reserve must be maintained by physicians toward the public in regard to some professional questions, and as there exist many points in medical ethics and etiquette through which the feelings of physicians may be painfully assailed in their intercourse, and which can not be understood or appreciated by general society, neither the subject-matter of their differences nor the adjudication of the arbitrators should be made public.

ARTICLE VI.—COMPENSATION.

SECTION 1.—By the members of no profession are eleemosynary services more liberally dispensed than by the medical, but justice requires that some limits should be placed to their performance. Poverty, mutual professional obligations, and certain of the public duties named in Sections 1 and 2, of Chapter III, should always be recognized as presenting valid claims for gratuitous services; but neither institutions endowed by the public or by the rich, or by societies for mutual benefit, for life insurance, or for analogous purposes, nor any profession or occupation, can be admitted to possess such privilege.

SEC. 2.—It can not be justly expected of physicians to furnish certificates of inability to serve on juries, or to perform militia duty; to testify to the state of health of persons wishing to insure their lives, obtain pensions, or the like, without due compensation. But to persons in indigent circumstances such services should always be cheerfully and freely accorded.

SEC. 3.—Some general rules should be adopted by the physicians in every town or district relative to the minimum pecuniary acknowledgment from their patients; and it should be deemed a point of honor to adhere to these rules with as much uniformity as varying circumstances will admit.

SEC. 4.—It is derogatory to professional character for physicians to pay or offer to pay commissions to any person whatsoever who may recommend to them patients requiring general or special treatment or surgical operations. It is equally derogatory to professional character for physicians to solicit or to receive such commissions.

CHAPTER III.—THE DUTIES OF THE PROFESSION TO THE PUBLIC.

SECTION 1.—As good citizens it is the duty of physicians to be very vigilant for the welfare of the community, and to bear their part in sustaining its laws, institutions and burdens; especially should they be ready to co-operate with the proper authorities in the administration and the observance of sanitary laws and regulations, and they should also be ever ready to give counsel to the public in relation to subjects especially appertaining to their profession, as on questions of sanitary police, public hygiene and legal medicine.

SEC. 2.—It is the province of physicians to enlighten the public in regard to quarantine regulations; to the location, arrangement, and dietaries of hospitals, asylums, schools, prisons and similar institutions; in regard to measures for the prevention of epidemic and contagious diseases; and when pestilence prevails, it is their duty to face the danger, and to continue their labors for the alleviation of the suffering people, even at the risk of their own lives.

SEC. 3.—Physicians, when called on by legally constituted authorities, should always be ready to enlighten inquests and courts of justice on subjects strictly medical, such as involve questions relating to sanity, legitimacy, murder by poison or other violent means, and various other subjects embraced in the science of medical jurisprudence. It is but just, however, for them to expect due compensation for their services.

SEC. 4.—It is the duty of physicians, who are frequent witnesses of the great wrongs committed by charlatans, and of the injury to health and even destruction of life caused by the use of their treatment, to enlighten the public on these subjects, and to make known the injuries sustained by the unwary from the devices and pretensions of artful impostors.

SEC. 5.—It is the duty of physicians to recognize and by legitimate patronage to promote the profession of pharmacy, on the skill and proficiency of which depends the reliability of remedies, but any pharmacist who, although educated in his own profession, is not a qualified physician, and who assumes to prescribe for the sick, ought not to receive such countenance and support. Any druggist or pharmacist who dispenses deteriorated or sophisticated drugs or who substitutes one remedy for another designated in a prescription, ought thereby to forfeit the recognition and influence of physicians.

Principles of Ethics Adopted.

Dr. E. Eliot Harris, New York—In view of the fact that the report I have just read was unanimously adopted by the enlarged committee, consisting of the special committee, and one delegate from each state, I move the adoption by this house of the report as read.

Dr. Charles A. L. Reed, Ohio, in rising to second the motion, said that he wished to testify to the absolute harmony which has prevailed in this conference, and to congratulate the Association on the fact that by the adoption of this report we put an end to a controversial question which has disturbed our councils for many years. (Applause.)

The President put the motion, and it was adopted unanimously, amid tumultuous and prolonged applause.

Dr. E. Eliot Harris, New York, then offered the following resolution, and moved its adoption:

Resolved, That the Special Committee engross a copy of the Principles of Medical Ethics of the American Medical Association, and that it be signed by the President and Secretary of this Association.

Seconded and unanimously carried.

Report of Committee on Transportation and Place of Annual Session.

Dr. Ellis, California, reported on behalf of the Committee on Transportation and Place of Session.

Invitations were received by the committee from Milwaukee, Cincinnati, St. Louis, and Atlantic City, and it was suggested to the committee by the President that the Association meet in Washington. In regard to Cincinnati and St. Louis, the invitations did not come from the medical profession. In regard to Washington, the committee telegraphed for rates in regard to hotels, and as the replies to telegrams were not satisfactory, Washington was eliminated as a place of session. The committee recommended unanimously Atlantic City, N. J., as the place of the next session.

It was moved and seconded that the recommendation be adopted.

Dr. Sarles, Wisconsin, moved to amend the report of the committee by substituting Milwaukee for Atlantic City. Seconded.

After some discussion, which was participated in by Drs. Moyer, Dorsett, Dean and Hill, the President put the substitute, and it was declared lost.

Atlantic City Session in 1904.—The house then voted on the original motion, and it was adopted.

The Secretary read a resolution from the Section on Hygiene and Sanitary Science, which, on motion, was referred to the Business Committee.

District Branches of the Association.

Dr. Edwin Walker, Indiana, president of the Mississippi Valley Medical Association, said that at the last meeting of this association a resolution was unanimously passed, declaring that it was desirable that it should become a distinct branch of the American Medical Association. He asked, therefore, that this matter be referred to the Committee on Organization.

Dr. McCormack, Kentucky, moved that the matter be referred to the Committee on Organization, and that authority be granted that committee to consider the question of the division of this country into branch associations, in accordance with the plan laid down in the By-laws, and that the committee be instructed to report on such a plan at the next annual session of the Association. Seconded and carried.

Report on National Bureau of Medicines and Foods.

Dr. Ellis, California, presented the report of the Provisional Committee on the Establishment of a National Bureau of Medicines and Foods.

Your committee has very carefully investigated the matter submitted to it both in general plan and as to the scientific, business and legal details, and while the matter will demand of the joint committees an enormous amount of work, there is nothing in the plan that can not be accomplished if the two associations co-operate with and support their committees. The matter has reached a point where a little more time devoted to energetically prosecuting the work will see a successful accomplishment of the objects desired, whereas a postponement of all further work for a year would result in the indefinite continuance of the conditions which have existed and which have been deplored since 1881.

The bureau plan has in contemplation the idea of establishing a board of qualified experts who should represent the interests and the support of the professions of medicine and pharmacy, and through the medium of such a board secure (1) more general conformity to the standards of the pharmacopeia; (2) drugs and chemicals and foodstuffs that will be actually as labeled and can be relied on; and (3) deal in a proper professional and ethical manner with the large and ever-increasing number of proprietary mixtures and preparations that are being presented to the medical profession. This was first suggested by Dr. F. E. Stewart at the session of the American Medical Association in 1881.

This idea has been elaborated and plans have been formulated which it is thought will secure the objects desired. (The detailed plans will be submitted if so desired, but they are necessarily extensive and complex, and several hours would be required to fully consider them.) These plans have been approved by a number of representative physicians and pharmacists, and it is evident that of the professional interests and the people of this country (and especially the members of the American Medical and the American Pharmaceutical Associations) really desire relief from the present unfortunate and distressing condition of materia medica and pharmacy, and of adulterated and dishonest foodstuffs, such relief is at hand.

Primarily, this plan contemplates the voluntary association of honest manufacturers and pharmacists who will agree with the board of experts representing medicine and pharmacy on standards of identity, purity, quality and strength to which their products shall comply, and will further agree to carry out these standards and to comply with the necessary rules governing manufacture, etc.

Organization for the purposes indicated would be begun by the formation of a corporation on the membership plan—no stock issued and not for profit—under the name of the "National Bureau of Medicines and Foods," and all members of the American Medical and the American Pharmaceutical Associations would be members of this bureau. It is proposed that the board of directors governing this bureau be elected by these two associations, each having five directors, one from each association retiring annually and a successor elected for five years.

In order to indicate to the physician, the pharmacist or the purchaser such articles as comply with the standards of identity, purity, quality and strength, and may in consequence be

relied on to conform truthfully with the label affixed, and also to reward the honest manufacturer and pharmacist for his honesty and aid him in competition with dishonest or impure products, those manufacturers and pharmacists who affiliate with the bureau in this work will be authorized to print on the labels of such of their products as are placed under the supervision of this bureau a certificate of identity, purity, quality and strength of a form to be indicated by the board of directors.

All possible precautions in the way of frequent inspection, analysis, or assay will be taken by the bureau in order to keep certified products up to standard and to protect the bureau certificate from fraud. In addition to the original analysis or inspection of each "batch," every article bearing the bureau certificate will be purchased in open market from time to time and submitted to analysis, assay and comparison with standard samples.

The bureau will also gather and diffuse reliable information relative to materia medica products, chemicals and foodstuffs, and to those who manufacture or deal in the same, and it is believed that in a comparatively short time such information will replace and do away with the one-sided and unreliable trade literature which is at present in many instances the only available source of information.

The work of the bureau will be purely commendatory, and not in any way condemnatory, so that it can in no event become an agent of blackmail.

As the bureau is not a commercial enterprise, is not organized for profit, nor for money-making, only the actual expense of doing the work required will have to be defrayed.

In addition to the two associations already mentioned any scientific society that may vote to affiliate with the bureau may do so, and its members then become members of the bureau; and further, any person who so desires or who is willing to signify his approval of the aims and objects of the bureau, may become a member on the payment of $1 per year.

The best legal opinion to be obtained assures your committee that it is possible for this work to be carried on successfully without involving the associations in any legal difficulties with those whose products are not certified by the proposed bureau.

This work would be undertaken only by the joint action of the committees of this Association and of the American Pharmaceutical Association, and in harmony with the legislative committees of these associations, giving and taking such aid from the U. S. government authorities as we are able to give or receive.

H. BERT ELLIS,
N. S. DAVIS, JR.
PHILIP MILLS JONES.

Abstract of Laws from P. No. 158, approved March 3, 1903, authorizing the Secretary of Agriculture to investigate the adulteration of foods and drugs, to supervise the importation of food products from foreign countries and to fix standards of purity for foods.

The provisions of the law are as follows:

To investigate the adulteration of foods, drugs, and liquors, when deemed by the Secretary of Agriculture advisable; and the Secretary of Agriculture, whenever he has reason to believe that articles are being imported from foreign countries which by reason of such adulteration are dangerous to the health of the people of the United States, or which are forbidden to be sold or restricted in sale in the countries in which they are made or from which they are exported, or which shall be falsely labeled in any respect in regard to the place of manufacture or the contents of the package, shall make a request on the Secretary of the Treasury for samples from original packages of such articles for inspection and analysis; and the Secretary of the Treasury is hereby authorized to open such original packages and deliver specimens to the Secretary of Agriculture for the purpose mentioned, giving notice to the owner or consignee of such articles, who may be present and have the right to introduce testimony; and the Secretary of the Treasury shall refuse delivery to the consignee of any such goods which the Secretary of Agriculture reports to him have been inspected and analyzed and found to be dangerous to health, or which are forbidden to be sold or restricted in sale in the countries in which they are made or from which they are exported, or which shall be falsely labeled in any respect in regard to the place of manufacture or the contents of the package.

To enable the Secretary of Agriculture to investigate the character of food preservatives, coloring matters, and other substances added to foods, to determine their relation to digestion and to health, and to establish the principles which should guide their use; to enable the Secretary of Agriculture to investigate the character of the chemical and physical tests which are applied to American food products in foreign countries, and to inspect before shipment, when desired by the shippers or owners of these food products, American food products intended for countries where chemical and physical tests are required before said food products are allowed to be sold in the countries mentioned, and for all necessary expenses connected with such inspection and studies of methods of analysis in foreign countries; to enable the Secretary of Agriculture, in collaboration with the Association of Official Agricultural Chemists, and such other experts as he may deem necessary, to establish standards of purity for food products and to determine what are regarded as adulterations therein, for the guidance of the officials of the various states and of the courts of justice.

Dr. Le Grande, Alabama, moved that the report be adopted and the present committee be continued. Seconded.

Dr. H. O. Walker, Michigan, moved to amend by referring the report to the Business Committee. Seconded.

The motion as amended was carried.

Dr. McCormack, Kentucky, offered a resolution creating an officer to be named by the President, who shall be known as the Commissioner of Medical Education of the American Medical Association.

On motion, the resolution was referred to the Board of Trustees, with the request that the board report to-morrow morning. Seconded and carried.

Proposed Amendment on Committee on Legislation.

Dr. Charles A. L. Reed, Ohio, introduced the following proposed amendment:

SECTION 3.—COMMITTEE ON NATIONAL LEGISLATION: The Committee on National Legislation shall consist of three members appointed by the President, one for a term of one year, one for a term of two years, and one for a term of three years, but whose successors shall each be appointed as vacancies occur, for a term of three years, and an auxiliary committee to be composed of one delegate or alternate from each state and territorial society represented in this Association, to be approved annually by the President of this Association, on the nomination of such state or territorial society, and one member from the Army, Navy and Marine-Hospital Service, to be nominated by the chief officer of these respective departments, and approved by the President of this Association. It shall be the duty of the committee to represent before Congress and elsewhere, the wishes of this Association regarding any proposed legislation, that in any respect bears on the promotion and preservation of the public health, or on the material or moral welfare of the medical profession. This committee shall invite to a conference at Washington, D. C., once in each year, or oftener if need be, the auxiliary committee herein created, at which shall be considered questions of national and state legislation, with the view of uniting all of the influences of the entire profession throughout the country in support of all proper legislation, and of securing uniformity in the same, so far as may be possible and expedient. The Committee on National Legislation shall have power to act *ad interim*, and its necessary expenses shall be paid by this Association.

Reapportionment.

Dr. Foshay, Ohio, called attention to a provision in Chapter 3, Section 3, of the By-laws, regarding the appointment of a committee of five on reapportionment. He moved, therefore, that the President be authorized between now and to-morrow to appoint the additional three members of this committee, to serve during the succeeding year, and to report on reapportionment at the Atlantic City meeting. Carried.

Dr. Allport, Illinois, offered a resolution, which was referred to the Business Committee.

Resolutions on Abuse of Patent Medicines.

Dr. Hill, Wisconsin, presented resolutions from the Section on Materia Medica, Pharmacy and Therapeutics.

To the House of Delegates:

The following resolutions have been adopted by the Section on Materia Medica, Pharmacy and Therapeutics, and the delegates from that Section to the House of Delegates instructed to present them to the House of Delegates:

In view of the growth of the use and abuse of proprietary remedies, the Section recommends:

1. That newspapers which do not print objectionable medical advertisements are entitled to and should receive the favor and preference of medical men.

2. That articles on the dangers arising from the use of quack nostrums should be written for such newspapers for publication.

3. That the Committee on National Legislation be asked to consider the feasibility of the introduction in the next House of Representatives of an interstate measure prohibiting or limiting the sale of poisonous and dangerous patent medicines.

4. That no medicinal preparation for internal use, as distinguished from antiseptics, disinfectants, cosmetics and dietetics, advertised as a remedy or cure to the laity, is entitled to the patronage of physicians, nor should such be admitted to the pages of medical journals, nor to the exhibitions of the American Medical Association.

5. That manufacturers be requested to print the scientific or chemical names under the trade name of all pharmaceutic or chemical preparations.

6. That the general plan and objects of the National Bureau of Medicines and Foods are entitled to a further careful investigation by a special committee of the American Medical Association.

Metric System Recommended.

To the House of Delegates:

The following resolutions have been adopted by the Section on Materia Medica and Therapeutics and a delegate from that Section instructed to present them to the House of Delegates, with the recommendation that they be adopted by the Association:

Resolved, That teachers of medicine and pharmacy, editors of medical and pharmaceutic journals and authors of text-books, are respectfully requested to give precedence to the metric method in the writing of all medical formulæ and that for the administration of doses of less than a teaspoonful, the quantity be stated in drops delivered from a standard medicine dropper or pipe of three millimeters of external diameter, which will deliver twenty drops of water at 15 degrees C., which will measure one cubic centimeter when dropped at the rate of 1 per second, and that the teaspoonful be considered as equivalent to 5 cubic centimeters, and that the tablespoonful be considered as equivalent to 15 centimeters; and,

Resolved, That the orthography, abbreviations, etc., of the International Bureau, or as revised by the National Bureau of Standards at Washington, shall also be recommended for adoption in medical and pharmaceutic publications; and,

Resolved, That a copy of these resolutions be transmitted to the Committee on Revision of the United States Pharmacopeia for 1903, with the request that they be incorporated, as far as possible, in the United States Pharmacopeia.

On motion, the resolutions were referred to the Business Committee.

Dr. J. B. Morgan, Georgia, offered the following amendments to Article 4, Section 1, of the Constitution. After the words "Marine Hospital Service," add:

And the ex-Presidents of this Association who shall continue as residents of the United States or its Territories.

The Secretary read a resolution from the Section on Hygiene and Sanitary Science, which, on motion, was referred to the Business Committee.

Dr. Moyer, Illinois, on behalf of the Business Committee recommended that when the house adjourns it meet at 9 o'clock Friday morning.

On motion, the recommendation of the committee was concurred in.

The Secretary said he had received a communication in the form of a manuscript from Dr. Liston H. Montgomery in regard to why the name of no American scientist appears in the Hall of Fame, and on motion of Dr. Walker, Indiana, it was referred to the Business Committee without being read.

Dr. H. A. West, Texas, moved that the Board of Trustees be instructed to make an appropriation so that the Business Committee may be authorized to employ the services of a stenographer at the next Annual Session, to facilitate the work of that Committee. Carried. On motion, the House of Delegates then adjourned until 9 a. m. Friday.

FRIDAY MAY 8—SEVENTH MEETING.

The House met at 9:15 a. m., and was called to order by the President.

The Secretary called the roll, and there was a quorum present.

On motion the reading of the minutes of the previous session was dispensed with.

Election of Association Officers.

The House then proceeded to the election of officers, with the following result:

PRESIDENT—Dr. John H. Musser, Philadelphia.

FIRST VICE-PRESIDENT—Dr. G. C. Savage, Nashville, Tenn.

SECOND VICE-PRESIDENT—Dr. Isadore Dyer, New Orleans.

THIRD VICE-PRESIDENT—Dr. C. Lester Hall, Kansas City, Mo.

FOURTH VICE-PRESIDENT—Dr. George F. Jenkins, Keokuk, Iowa.

TREASURER—Dr. Henry P. Newman, Chicago.

SECRETARY AND EDITOR—Dr. George H. Simmons, Chicago.

TRUSTEES—Drs. William H. Welch, Baltimore; Miles F. Porter, Fort Wayne, Ind., and Dr. M. L. Harris, Chicago.

JUDICIAL COUNCIL—Drs. F. H. Wiggin, New York; G. B. Gillespie, Tennessee, and D. C. Peyton, Indiana.

ORATOR ON SURGERY—Dr. W. J. Mayo, Rochester, Minn.

ORATOR ON MEDICINE—Dr. George Dock, Ann Arbor, Mich.

ORATOR ON STATE MEDICINE—Dr. H. M. Biggs, New York.

Standing Committees Announced.

The President announced the following committees:

COMMITTEE ON AWARD OF ASSOCIATION MEDAL—Dr. Lewis S. McMurtry, Louisville, Ky., chairman; Dr. Burnside Foster, St. Paul, Minn.; M. H. Fussell, Philadelphia.

COMMITTEE ON AWARD OF SENN MEDAL—Dr. James H. Dunn, Minneapolis, chairman; Dr. M. L. Harris, Chicago; Dr. Floyd W. McRae, Atlanta, Ga.

COMMITTEE ON SCIENTIFIC EXHIBIT—Dr. F. B. Wynn, Indianapolis, chairman, appointed as director, he to select the remaining members of the committee.

COMMITTEE ON SCIENTIFIC RESEARCH—Dr. Alfred Stengel, Philadelphia, chairman; Dr. William Osler, Baltimore, and Dr. L. Hektoen, Chicago.

COMMITTEE ON ORGANIZATION—Dr. J. N. McCormack, Bowling Green, Ky., chairman; Dr. P. Maxwell Foshay, Cleveland, Ohio; Dr. George H. Simmons, Chicago.

COMMITTEE ON RUSH MONUMENT—Dr. James C. Wilson, Philadelphia, chairman; Dr. Henry D. Holton, Brattleboro, Vt., treasurer; Dr. Frank Billings, Chicago; Dr. L. Duncan Bulkley, New York; Dr. Wm. L. Rodman, Philadelphia.

COMMITTEE ON NATIONAL LEGISLATION—Dr. Charles A. L. Reed, Ohio, chairman, one year; Dr. W. L. Rodman, Philadelphia, two years, and Dr. William H. Welch, Baltimore, three years.

COMMITTEE ON BUSINESS—Dr. Edwin Walker, Evansville, Ind.; Dr. A. R. Craig, Pennsylvania; Dr. George M. Kober, District of Columbia; Dr. T. J. Murray, Montana, and Dr. William Davis, Minnesota.

COMMITTEE ON TRANSPORTATION AND PLACE OF SESSION—Drs. M. L. Harris, Illinois; F. H. Wiggin, New York; H. Bert Ellis, California; B. H. Hartwell, Massachusetts; G. C. Savage, Tennessee; H. A. West, Texas, and A. F. Jonas, Nebraska.

COMMITTEE ON MAJOR WALTER REED MONUMENT—Drs. W. W. Keen, Pennsylvania, chairman; Joseph D. Bryant, New York; Maurice H. Richardson, Massachusetts; Victor C. Vaughan, Michigan; T. S. Cullen, Maryland.

COMMITTEE ON REAPPORTIONMENT—Drs. William S. Foster, Pennsylvania, chairman; P. Maxwell Foshay, Ohio; J. N. Hall, Colorado, President-elect and Secretary ex officio.

COMMITTEE ON NATIONAL INCORPORATION—Drs. Joseph D. Bryant, chairman, New York; H. L. E. Johnson, District of Columbia; Leartus Connor, Michigan; D. S. Fairchild, Iowa; C. G. Kenyon, California, and Frank Billings, ex officio.

Endorsement of Vote of Thanks for Portraits.

The Secretary stated that the portrait of Dr. T. G. Richardson was presented to the General Meeting on Tuesday night by Dr. Edmond Souchon, New Orleans, who delivered a eulogy on the life of Dr. Richardson. After the presentation of the portrait a motion was made and carried that the thanks of the Association be extended to the donor of this picture. A portrait of Dr. Hunter McGuire was also presented, and a eulogy delivered by Dr. W. L. Rodman, Philadelphia. The Secretary said that the Constitution provides that no resolution shall be adopted as expressing the wishes or thanks of the Association unless it be endorsed by the House of Delegates.

Accordingly a motion was made to endorse the action taken at the General Meeting, and it was carried.

Associate Members from Section on Hygiene.

The Secretary presented the following: At the meeting of the Section on Hygiene and Sanitary Science the following named persons were recommended by this section as associate members of the American Medical Association: Mr. W. A. King, chief of Division of Vital Statistics of the United States Census Service; Mr. George W. Fuller, C.E., expert in filtration of water and sewage wastes; Mr. G. G. Earl, expert of the New Orleans Sewerage and Water Board.

On motion these gentlemen were accepted as associate members.

Dr. P. Maxwell Foshay, Ohio, said the election of Dr. Musser to the presidency had raised a rather anomalous constitutional

problem. He quoted Article 8, Section 3 of the Constitution, which reads:

Each officer, with the exception of the Trustees, shall hold office for one year, or until his successor is elected and installed.

Dr. Musser having gone home, this provision of the Constitution which provides that the President shall hold office until his successor is installed could not be complied with. He, therefors, moved that the House of Delegates, by unanimous consent, order President Billings to retain office until the first General Meeting of the next annual session at Atlantic City, N. J., June, 1904. Seconded.

After considerable discussion, which was participated in by Drs. Bishop, Foshay, Miller, Jackson, Vaughan, Wall, McCormack, Moyer and Rodman, Dr. Foshay pointed out that this was the plan pursued by the British Medical Association.

The President put the motion, and it was carried.

Dr. Moyer, Illinois, speaking for the Business Committee, said that the committee reported favorably on the resolution presented by Dr. McCormack at the previous meeting.

On motion the report was adopted.

Association Thanks the New Orleans Committee of Arrangements and Others.

Dr. McCormack, Kentucky, offered the following resolutions of thanks:

Resolved, That the cordial thanks of this Association be hereby tendered to the fair women and brave men of this historic city, and more especially to the medical profession and the various active and efficient committees through which it has been made effective, for the profuse and charming hospitality which has done so much to make this one of the most pleasant sessions in the history of the Association.

Resolved, That thanks be extended also to the newspapers of the city for the full and impartial reports of the proceedings published, to the transportation companies for reduced rates, and to all others who have contributed to the success and pleasure of this session.

Resolved, That especial thanks be extended to the retiring President and to the Secretary, for the constant fidelity and distinguished ability manifested in their management of the affairs of the Association, not only during this session, but throughout the year.

On motion the resolutions were unanimously adopted.

The President called for a report of the Committee on Sections and Section Work, but there was no report made.

Announcement of Other Committees.

The Committee on Reciprocity, Committee on Public Health, Committee on Medical Education, Committee on Prophylaxis of Venereal Diseases, and the Committee on Credentials and Registration were continued, as follows:

COMMITTEE ON RECIPROCITY—Dr. W. L. Rodman, Philadelphia, chairman; Dr. William H. Welch, Baltimore; Dr. Joseph M. Mathews, Louisville, Ky.; Dr. Henry Beates, Jr., Philadelphia; Dr. T. J. Murray, Butte, Mont.

COMMITTEE ON PUBLIC HEALTH—Dr. Charles O. Probst, Columbus, Ohio, chairman; Dr. J. N. Hurty, Indianapolis; Dr. W. H. Sanders, Mobile, Ala.; Dr. H. A. West, Galveston, Tex.; Dr. W. C. Gorgas, U. S. A.

COMMITTEE ON PROPHYLAXIS OF VENEREAL DISEASES—Dr. Henry D. Holton, Brattleboro, Vt., chairman; Dr. George M. Kober, Washington, D. C.; Dr. W. H. Sanders, Mobile, Ala.; Dr. Ludwig Weiss, New York, secretary; Dr. L. D. Bulkley, New York; Dr. Louis E. Schmidt, Chicago.

COMMITTEE ON CREDENTIALS AND REGISTRATION—Dr. George H. Simmons, Chicago, chairman; Dr. P. Maxwell Foshay, Cleveland, Ohio; Dr. H. O. Walker, Detroit.

Supplementary Report of Board of Trustees.

Dr. Happel, chairman of the Board of Trustees, presented a supplementary report on behalf of the board. He said:

Your Board of Trustees would respectfully request the House of Delegates that whenever any matter involving the appropriation of money is sent to the Board of Trustees for action that it be properly endorsed with the names of the presiding officer of the House and the Secretary. We have had several matters brought before the board, and documents have been handed first to one member and then to another member of the board, without any endorsement. The House of Delegates is a business body, and why not be such *de facto*, as well as *de jure*; let us have everything that comes from the House of Delegates to the Board of Trustees conducted on a business basis.

In regard to the accounts that came before the board, your board would report that it has passed favorably on the account of the Committee on Scientific Research, granting an allowance to pay bills for $375. The board reported yesterday that it had appropriated a sum of money for this committee, not to exceed $500 for the ensuing year.

With reference to the Committee on Prophylaxis of Syphilis, the request was made to appropriate the sum of $500 to prepare for that meeting. The Board of Trustees reported that it would be unfair to appropriate a sum of money for one committee and not for another, under the present conditions of the finances of this organization, hence the request was respectfully declined.

The next matter coming before the board was the resolution of Dr. McCormack in regard to the creation of an office, entitled "Commissioner of Medical Education," indirectly carrying an appropriation, and the request was returned to the House of Delegates, without action, for the present, and to lie on the table for a year.

In regard to the report of the Committee on Medical Education, which carried with it indirectly a request for the appropriation of a sum not to exceed $5,000, your board would report that it heartily endorses the sentiments of the matter contained in the report of the Committee on Medical Education, but that there is not money enough on hand at present to grant the appropriation asked for.

On motion of Dr. Bishop, Pennsylvania, the report was adopted.

Resolution Passed on Care of Eyes of School Children.

The Business Committee reported in regard to a resolution from the Section on Ophthalmology, and offered by Dr. Allport, Illinois. The committee had been unable to see the officers of this Section, but it favored the adoption of the resolution as amended by the committee, which reads:

WHEREAS, The value of perfect sight and hearing is not fully appreciated by educators, and neglect of the delicate organs of vision and hearing often leads to disease of these structures; therefore, be it

Resolved, That it is the sense of the American Medical Association that measures be taken by boards of health, boards of education, and school authorities, and, where possible, legislation be secured, looking to the examination of the eyes and ears of all school children, that disease in its incipiency may be discovered and corrected.

On motion the report of the committee was adopted.

Committee on Bureau of Medicines and Foods Continued.

Dr. Moyer, Illinois, said: Your Business Committee was somewhat in doubt as to the Committee on National Bureau of Medicines and Foods. We inferred that that committee was continued. This being the case, it is in accord with a resolution which the committee is prepared to offer in reference to that committee:

Resolved, That the Committee on National Bureau of Medicines and Foods be continued, that they confer with the Committee of the American Pharmaceutical Association and with the United States authorities and report at the next annual session.

It was moved that the report be adopted. Carried.

Dr. Moyer, Illinois: The Business Committee has considered two communications, one regarding the Hall of Fame, and the other a report direct from the Section on Hygiene and Sanitary Science, without endorsement, both of which it is recommended be laid on the table.

On motion it was so ordered.

Resolution Favoring Popular Education in Hygiene.

The Business Committee recommends that the following resolution from the Section on Hygiene and Sanitary Science be referred to the Committee on Public Health:

Resolved, That the Section on Hygiene and Sanitary Science of the American Medical Association recommends the passage of a resolution by the House of Delegates, endorsing the principle of public education in the principles of hygiene, and the true nature, cause and prevention of contagious and infectious diseases, and the establishment of a National Institute of Hygiene, which would co-operate with the various states in popularizing such instruction, as set forth in the two papers read on the subject of popular education, and that a special committee of five be appointed to carry out the intention of the resolution and formulate a plan to report the same at the next annual session of the American Medical Association.

On motion it was so ordered.

Resolutions on Vital Statistics.

In regard to the following resolutions, offered by the Section on Hygiene and Sanitary Science, the Business Committee begs

to report favorably, and recommends their adoption, but does not agree with the suggestion that a special committee be appointed, but that the subject of this report be referred to the Committee on Public Health. Your committee fully recognizes the importance of vital statistics, but it is also impressed with the thought that too many special committees will certainly clog your proceedings, and that, therefore, it recommends that the resolutions be referred to the Committee on Public Health.

Dr. Vaughan, Michigan, moved to amend, by suggesting that the Committee on Public Health be instructed to confer with the Superintendent of Vital Statistics.

The Business Committee accepted the amendment, which was duly seconded and carried.

On motion of Dr. McCormack, Dr. Vaughan was added as a member of the committee. The resolutions above referred to are as follows:

WHEREAS, The Congress of the United States has recently passed the following joint resolution, which was approved by the President, Feb. 11, 1903:

Joint Resolution Requesting State Authorities to Co-operate with Census Office in Securing a Uniform System of Birth and Death Registration:

WHEREAS, The registration of deaths at the time of their occurrence furnishes official record information of much value to individuals; and

WHEREAS, The registration of births and deaths, with information on certain points, is essential to the progress of medical and sanitary science in preventing and restricting disease and in devising and applying remedial agencies; and

WHEREAS, All of the principal countries of the civilized world recognize the necessity for such registration and enforce the same by general laws; and

WHEREAS, Registration in the United States is now confined to a few states, as a whole, and the larger cities, under local laws and ordinances which differ widely in their requirements; and

WHEREAS, It is most important that registration should be conducted under laws that will insure a practical uniformity in the character and amount of information available from the records; and

WHEREAS, The American Public Health Association and the United States Census Office are now co-operating in an effort to extend the benefits of registration and to promote its efficiency by indicating the essential requirements of legislative enactments designed to secure the proper registration of all deaths and births and the collection of accurate vital statistics, to be presented to the attention of the legislative authorities in non-registration states, with the suggestion that such legislation be adopted; now, therefore,

Resolved, by the Senate and House of Representatives of the United States of America in Congress Assembled, That the Senate and House of Representatives of the United States hereby expresses approval of this movement and requests the favorable consideration and action of the state authorities, to the end that the United States may attain a complete and uniform system of registration.

WHEREAS, The adoption of this resolution and its effective execution mark the beginning of a vast improvement in the value and usefulness of the vital statistics of this country, for which purpose the recent publications of the Census Office on "Legislative Requirements for Registration of Vital Statistics," including draft of a model law and standard form of certificate of death, "Practical Registration Methods," "Relation of Physicians to Mortality Statistics," "Medical Education in Vital Statistics," and the "Manual of the International Classification of Causes of Death" are most admirably adapted; therefore,

Resolved, That the American Medical Association heartily welcomes the action of Congress in promoting the adoption of complete and uniform systems of registration of vital statistics in the United States, and congratulates the American Public Health Association and the U. S. Census Office on their useful and effective co-operation for this purpose;

Resolved, That the American Medical Association strongly urges on the state medical societies that special committees be appointed to advocate and secure the passage of satisfactory registration laws in states that do not at present possess them, that county societies support and aid in the execution of such laws as far as possible, and that physicians individually, throughout the United States, endeavor to promote the accuracy and value of the mortality statistics by giving clear and definite statements of causes of death on certificates of death.

Resolved, That a permanent Committee on Vital Statistics be constituted by the American Medical Association, to consist of five members selected by the President, whose duty it shall be to co-operate with the corresponding committees of the American Public Health Association, the Conference of State and Provincial Boards of Health of North America, and with other committees organized for this purpose, and with the U. S. Census Bureau, the U. S. Public Health and Marine-Hospital Service, and other branches of the Federal Government, in the work of promoting the adoption of suitable registration laws and the extension of the registration area, the proper compilation and presentation of vital statistics by states and cities in weekly and monthly bulletins and annual reports, the use of the standard certificate of death, and also in further work relating to the extension, improvement and practical use of the international classification of causes of death, the disposition of jointly returned causes and preliminary work relating to its next decennial revision.

To Avoid Conflicting Dates of State Associations.

The Business Committee offered the following:

Resolved, That the Committee on Organization be instructed to confer during the year with the governing authorities of the various state and territorial associations and, if possible, to report to this House next year some general plan for holding the annual meetings of these bodies in the fall, or at least at a time which will least conflict with the attendance of members at the sessions of this Association.

On motion, the resolution was adopted.

Business Committee Warns Against Excessive Legislation.

Your Business Committee, in this final report, wish to utter a word of warning on what they regard as excessive legislation; the very facility with which the work of the Association is now accomplished is a source of danger. In the past, when so little could be done, sufficient was accomplished from year to year to keep the Association abreast of the development of the profession. At present we are threatened with just the opposite danger, namely, legislation on a great variety of topics, in which the energy of the Association will be dissipated and very little accomplished. It seems to your committee that the reorganization of the profession, the strengthening of THE JOURNAL, and the welding of the profession into a unit are subjects that will profitably occupy the energies of this House for some years to come.

Some well-directed efforts at reform may be undertaken. But if committees are appointed and proceedings had with every thought that enters a member's mind as something which should be reformed, it is certain that little will be accomplished and, at the same time, the proceedings of your House will be clogged, and its work rendered much less efficient. One or two well-directed efforts, extending over several years, if they bear fruit, would be better than this multiplicity of effort.

Already your House has blocked out sufficient business to occupy the greater portion of its executive session next year, and we fear that an excessive amount of new business has been undertaken at this session.

Your committee has endeavored to act as a buffer in keeping new business out of the House, and many times must have seemed ungracious to many who had meritorious matters for consideration. Many do not seem to realize that mere merit alone is not the only thing that should entitle matter to be brought before the House. The members should not forget that in carrying over from year to year a vast amount of business they encroach on the time which should be given to new matters.

Your committee has favored resolutions. Their resounding periods seem somewhat empty; but, as an authoritative expression on a given matter by this body, we believe they are frequently quoted, and are used to further civil legislation and the executive action of municipal officers. While they seem less effective than the committee, they are often of more value.

Business Committee Receives Thanks.—On motion of Dr. Wall, Buffalo, the report of the Business Committee was accepted and the thanks of the House of Delegates tendered to the committee for their faithful labors.

Report of Committee on Reciprocity.—The President called for the report of the Committee on Reciprocity.

In the absence of the chairman, Dr. Rodman, Philadelphia, Dr. Murray, Montana, a member of the committee, said that the committee simply desired to report progress.

Code Revision Committee Thanked.—On motion of Dr. Wishard, Indiana, a vote of thanks was extended to the Committee on Revision of the Code of Ethics.

Amendments Offered.—A proposed amendment to Chapter 4, Section 3 of the By-laws was offered by Dr. Wall, Buffalo. This section to read as follows:

SECTION 3.—The Presidents and Vice-Presidents elected at each annual session of the Association shall be installed at the first General Meeting of the annual session next following that at which they were elected. All other officers shall assume office immediately after the last meeting of the annual session of the House of Delegates at which they are elected.

Dr. Wall, Buffalo, also offered the following amendment: To amend Chapter 4, Section 3 of the Constitution, by substituting "first" for "closing" and add "next annual session."

Dr. Moyer, Illinois: The Business Committee on short notice can not draw up an adequate amendment, but I am going to move that we amend Chapter 7, Section 4, by striking out the words "informal ballot."

Dr. Harris, New York: I have a communication which I will not read, but I would like to have it referred to the Committee on National Incorporation.

On motion the communication was so referred.

Dr. Moyer, Illinois: I move that all pending amendments to the By-laws and Constitution submitted at this meeting be referred to the Committee on Organization and Codification of the Constitution and By-laws, to report at the next annual meeting. Carried.

Dr. Harris, New York: I move that the Secretary be instructed to extend the thanks of the House of Delegates to the proper authorities for the use of this Council Chamber during our sessions. Carried.

On motion the House of Delegates then adjourned, *sine die*.

Membership of the House of Delegates.

The official roster of the House of Delegates was as follows:

DELEGATES FROM THE STATES.

Alabama—W. H. Sanders, W. N. Wilkerson, J. C. LeGrande.
Arkansas—H. C. Dunavant, J. A. Dibrell.
Arizona—R. W. Craig.
California—H. Bert Ellis, C. G. Kenyon, Philip Mills Jones.
Colorado—J. N. Hall.
Connecticut—C. S. Rodman, C. E. Brayton.
Delaware—G. W. Marshall.
District of Columbia—Geo. M. Kober.
Florida—R. D. Murray.
Georgia—J. B. Morgan, F. W. McRae.
Illinois—G. W. Webster, M. L. Harris, G. L. Eyster, A. C. Cotton, D. W. Graham, James Campbell, H. C. Mitchell, Chas. True.
Indian Territory—B. F. Fortner, Leroy Long.
Indiana—G. W. H. Kemper, Edwin Walker, W. N. Wishard, D. C. Peyton.
Iowa—J. R. Guthrie, Samuel Bailey.
Kansas—J. C. Minney.
Kentucky—J. N. McCormack, Ap Morgan Vance, I. A. Shirley.
Louisiana—Rudolph Matas, W. G. Owen.
Maryland—G. S. Cullen, W. H. Welch.
Maine—S. C. Gordon.
Massachusetts—B. H. Hartwell, H. E. Marion.
Michigan—H. O. Walker, V. C. Vaughan, T. A. Felch, J. B. Griswold.
Minnesota—A. W. Abbott, Wm. Davis.
Mississippi—J. C. Hall.
Missouri—J. N. Jackson, W. B. Dorsett, Frank J. Lutz.
Montana—T. J. Murray.
Nebraska—H. M. McClanahan, A. B. Anderson.
New Hampshire—I. J. Prouty.
New Jersey—Chas. J. Kipp, E. J. Marsh, L. M. Halsey.
New Mexico—J. Frank McConnell.
New York—E. Eliot Harris, Chas. A. Wall, Elias Lester, Jos. D. Bryant.
North Dakota—E. M. Darrow.
North Carolina—E. C. Register, J. A. Burroughs.
Ohio—C. A. L. Reed, P. Maxwell Foshay, Frank Warner.
Oklahoma—
Oregon—
Pennsylvania—William T. Bishop, J. B. Roberts, W. S. Foster, G. W. Guthrie, A. R. Craig, J. B. Donaldson, G. G. Harmon, C. L. Stevens.
Rhode Island—John Champlin.
South Dakota—W. J. Maytum.
South Carolina—Geo. R. Deane.
Tennessee—W. J. Miller, Duncan Eve, Louis LeRoy.
Texas—H. A. West.
Utah—A. C. Ewing.
Vermont—D. C. Hawley.
Virginia—J. R. Gildersleeve, Stuart McGuire, R. S. Martin.
Washington—
West Virginia—L. D. Wilson.
Wisconsin—W. T. Sarles, Herman Reineking.
Wyoming—Geo. P. Johnston.
Medical Department, U. S. A.—L. A. LaGarde.
U. S. Public Health and Marine Hospital—Walter Wyman.
U. S. Navy Medical Director—R. A. Marmion.

DELEGATES FROM THE SECTIONS.

Practice of Medicine—J. M. Anders.
Surgery and Anatomy—Chas. A. Powers, A. D. Bevan.
Obstetrics and Diseases of Women—Edwin Ricketts, E. E. Montgomery.
Hygiene and Sanitary Science—N. S. Davis.
Ophthalmology—Frank Allport.
Diseases of Children—
Stomatology—A. E. Baldwin.
Nervous and Mental Diseases—H. N. Moyer, Richard Dewey.
Cutaneous Medicine and Surgery—W. L. Baum.
Laryngology and Otology—N. H. Pierce.
Materia Medica—O. T. Osborne, W. B. Hill.
Pathology and Physiology—E. R. LeCount.

Section Minutes and Names of Those Registered at New Orleans To Be Printed Next Week.

THE JOURNAL of May 23 will contain the official minutes of the Sections and a list of members who registered at the New Orleans session.

Queries and Minor Notes.

ANONYMOUS COMMUNICATIONS will not be noticed. Queries for this column must be accompanied by the writer's name and address, but the request of the writer not to publish his name will be faithfully observed.

TO DETECT FORMALIN IN MILK.

DANVILLE, ILL., May 9, 1903.

To the Editor:—Will you kindly inform me of the method commonly used to detect formalin in milk? S. L. L.

ANS.—The test for the presence of formaldehyd in milk is to dilute the suspected milk with an equal volume of water and underlay the resulting solution with sulphuric acid containing a trace of ferric chlorid. The violet zone at the junction of the liquids indicates formaldehyd; in normal milk the zone will be brown.

A VETERINARY TRACHEOTOMIST.

OWOSSO, MICH., April 26, 1903.

To the Editor:—I have the honor to submit the following which occurred in my practice: Dr. A. M. Hume called me in consultation in a case of laryngeal obstruction. The patient was a butcher. Tracheotomy was advised and performed. On regaining his breath, the patient motioned for a pencil and paper on which he wrote the following: "I have operated on many, but they all died." He is still alive. D. H. LAMB.

PINK REACTION IN URINE—IS IT DUE TO A DRUG?

JAKIN, GA., May 4, 1903.

To the Editor:—This morning while applying the nitric acid test to the urine of a pregnant woman, I noticed that all the urine above the acid turned to a pink color. This is a reaction that I have never noticed before, and I would like to know the cause of it.

H. G. MINTER, M.D.

Medical News.

ALABAMA.

Personal.—Dr. William M. Gamble, state physician at the Wetumpka penitentiary, has resigned and has been succeeded by Dr. Martin, Clanton.——Mr. Martin Crook, formerly of Calhoun County, has been appointed surgeon of the Pacific Cable Company, and will be stationed at Midway Island.

Smallpox in Alabama.—The cause for the prevalence of smallpox in Alabama for the past six years, lies not with the health authorities, according to Dr. William H. Sanders, health officer of Alabama, but with the failure of the legislature to pass laws upholding the enforcement of the laws of the health board. From 18 counties, 335 cases of smallpox were reported.

New Hospitals.—The Tennessee Coal, Iron and Railway Company has finished two of the series of modern hospitals for its employes. They are located at Readers, near Bessemer, and at Fossil, two miles south of Powderly. The former is to be the main hospital of the series and is under the personal supervision of Dr. William W. Richardson, Bessemer, chief surgeon of the company.

Commencements.—Birmingham Medical College held its ninth annual commencement, April 2, graduating a class of 22. A. P. Montague, LL.D., delivered the annual address; Dr. R. M. Cunningham, the faculty address, and Dr. Benjamin L. Wyman conferred degrees and gave the charge to the class.——The thirty-seventh year of the Medical College of Alabama, Mobile, closed April 3. A class of 12 received diplomas.

CALIFORNIA.

Rupture Specialist Fined.—"Prof." Joseph Fandrey, Los Angeles, who claimed to be a rupture specialist but had no license to practice, was fined $100 by a police justice, May 2.

Sequoia Hospital Open.—The formal opening of Sequoia Hospital, Eureka, took place recently. Dr. Jay L. McLaren is president of the institution; Dr. William H. Wallace, vice-president, Dr. Charles C. Falk, secretary, and Dr. Rae Felt, treasurer.

Typhoid at Stanford.—The sixth death from typhoid at Stanford University, Palo Alto, occurred May 4. While the regular and emergency hospitals are still crowded the situation appears more favorable, and the physicians are encouraged to believe that the progress of the epidemic is checked.

San Francisco Deaths.—During April 622 deaths were registered in the city, an annual mortality rate of 18.20 per 1,000.

The rate for the corresponding month of 1902 was 20.25 per 1,000. Tuberculosis caused 123 deaths; pneumonia, 46; heart diseases, 74; nephritis, 37; cancer, 27; typhoid fever, 11; diphtheria, 13; violence, 52.

Personal.—Dr. Charlotte Blake Brown, San Francisco, is making a tour of the Orient.——Dr. Andrew J. Comstock, Jr., has succeeded Dr. J. H. Love as physician of Ventura County. ——Dr. Auren A. Stafford, Alameda, was recently operated on for appendicitis and is reported as doing well.——Dr. Henry B. Stanley, Mount Bullion, has been appointed chief inspector by the Interior Department, to examine the waters of the Sacramento river as to their sanitary condition.——Dr. Frank Kingsley Ainsworth, Los Angeles, has been appointed superintendent and chief surgeon of the hospital department of the Southern Pacific Railway, with headquarters at San Francisco, vice Dr. Matthew Gardner, deceased.

COLORADO.

Personal.—Dr. Thomas D. Palmer, Canon City, has been appointed surgeon to the Colorado State Penitentiary, Canon City, to succeed the late Dr. John W. Collins.

Glockner Sanatorium Opened.—The new hospital addition to the Glockner Sanatorium, Colorado Springs, was formally opened with appropriate ceremonies, April 15.

Condemn the Governor.—The Fremont County Medical Society, at its meeting May 4, adopted, unanimously, resolutions condemnatory of the action of Governor Peabody in vetoing the medical bill.

Board Threatens to Resign.—The attitude of the Governor on financial questions has caused the State Board of Medical Examiners to threaten to resign. They do not care to have the honor and, incidentally, the hard work of serving on the board and, in addition, to be compelled to pay their own expenses.

ILLINOIS.

Chicago.

Tuberculosis Sanatorium Opened.—St. Ann's Sanatorium for consumptives, at West Forty-eighth avenue and Division street, was opened for the reception of patients May 1. The building will accommodate 300 patients.

Spitter Arrested.—Joseph P. Ransom was arrested on the complaint of a civilian, May 7, for violating a city ordinance by spitting on the sidewalk, and was released on payment of $25 as security for his appearance in court.

High Death-Rate.—With one exception the total of deaths for the week ended May 9 is the highest of any week this year, and the highest on record for any week in May. It is equivalent to an annual death-rate of 18.58 per 1,000.

Unjust Decision Against Dr. Webster Reversed.—In the suit for alleged malpractice against Dr. George W. Webster, president of the State Board of Health, mentioned in THE JOURNAL of February 14, in which a jury awarded damages of $13,000, Justice Hutchinson has set aside the verdict and granted a new trial.

Preventable Respiratory Diseases.—The number of deaths recorded last week from pneumonia—178—was the highest ever recorded. In the "Bulletin" of May 9 the following comments are made on the prevalence of preventable respiratory diseases:

> Since the first of the year 2,487 deaths have been attributed to this one cause (pneumonia), or nearly one-fourth (23.3 per cent.) of the total deaths from all diseases.
>
> Adding the deaths (548) from bronchitis, these two preventable respiratory diseases have caused 269 more deaths since January 1 than the aggregate of all the other important communicable and more or less preventable diseases, as shown by the following: Consumption, 1,139; acute intestinal, 423; typhoid fever, 239; diphtheria, 192; whooping cough, 165; measles, 158; scarlet fever, 148; influenza, 137; puerperal fever, 48; rheumatic fever, 40; smallpox, 39; erysipelas, 38. Total, 2,766; total bronchitis and pneumonia, 3,035.

Air Filtration.—The Municipal Laboratory, under the direction of the commissioner of health, has been making experiments looking toward the prevention of air-borne diseases by filtration, and has published the following statement regarding its work:

> The end in view is to devise some simple and inexpensive means by which all the air which enters a building or any of its rooms may be filtered of outside impurities, and all that passes out may be similarly cleansed of impurities—including possible disease germs—acquired by respiration of or contact with the occupants. It has already been determined by the experimenters that passage through a single thickness of cheesecloth will do this to a satisfactory extent, and steps are being taken to equip the laboratory windows with such screens or filters.
>
> The device consists of a screen of cheesecloth, the upper edge of which is attached to the lower rail of the bottom sash; when the sash is raised the cheesecloth is drawn up and completely fills the opening; when the sash is lowered the cloth is rolled up on an ordinary spring curtain roller fastened to the sill. Extemporized devices of this character have been occasionally employed by physicians, to the great relief of their patients suffering with respiratory diseases—especially asthma and hay fever.

MARYLAND.

Baltimore.

The Board of Medical Examiners of Maryland will hold the spring examinations in Baltimore, May 20, 21 and 22.

Valuable Relics.—The Crim relics have brought, so far, $72,300. The medical library, anatomic prints, old coins and autographs are to be catalogued and sold very soon.

The deaths last week amounted to 163; 15.41 per 1,000. For whites it was only 13.37, the negroes having a mortality twice as great. Consumption caused 23, pneumonia 13 deaths. Four new cases of smallpox were reported.

Personal.—Dr. Claribel Cone, professor of pathology in the Woman's Medical College, sailed for Genoa May 9, to be gone a year.——Dr. Theodore Cooke, Jr., has been reappointed physician to the penitentiary.——Dr. William Lee Howard sailed for Europe May 6, to spend six months in the psychopathic hospitals of Berlin, Heidelberg and Vienna.——Dr. R. A. Ravenscroft has resigned the position of senator of Garrett County.

Bahama Expedition.—A scientific expedition, under the auspices of the Geographical Society of Baltimore, will sail for the Bahama Islands June 6. The bacteriologic and medical research work will be under the direction of Dr. Clement A. Penrose and four medical assistants. All branches of science will be represented. The members have been drawn chiefly from the Johns Hopkins Hospital and University, the latter contributing $500 to the work. Private citizens have also given generously, and the researches will occupy two months.

Examination.—The faculty of the Baltimore Medical College announced that 93 candidates for the M.D. degree passed successful examinations, and the degrees were conferred on May 12. The college medal and the degree M.D. *magna cum laude* were awarded to A. C. Matthews of New York for best general examination. The Robert W. Johnson surgical prize was awarded to Edward Griswold Bray of Pennsylvania for the best examination in surgery. The William E. Moseley gynecologic prize was awarded to W. De Forrest Olmstead of Maryland for best examination in gynecology. F. J. Schnell of New York received the A. C. Pole anatomic prize for best work in practical anatomy.

MICHIGAN.

Banquet Local Nestors.—The Wayne County Medical Society gave a banquet, May 14, in honor of Drs. George B. Russell, Morse Stewart and Herman Keifer, in token of the esteem in which they are held by the profession in Wayne County.

Lupinski Resolutions.—At a meeting of the Academy of Medicine of Grand Rapids, April 22, resolutions were adopted testifying to the social and professional worth of the late Dr. Hugo Lupinski, and expressing its sense of loss and sorrow at his death.

Large Class Graduated.—On April 30 the thirty-fifth annual commencement exercises of the Detroit College of Medicine were held, and a class of 62 received diplomas from the president of the board of trustees. Dr. James W. Fuches, mayor of St. Clair, delivered the address of the evening, on medical aims and ethics.

Morbidity.—Rheumatism, neuralgia, bronchitis, influenza and tonsillitis, in the order named, caused the most sickness in the state during the past week. Meningitis was reported present at 3 places, whooping cough at 24, diphtheria at 30, typhoid fever at 34, scarlet fever at 67, measles at 71, smallpox at 80 and consumption at 177.

SOUTH DAKOTA.

New Member of Health Board.—Governor Herreid has appointed Dr. Horace A. Peabody, Webster, a member of the State Board of Health, vice Dr. H. E. McNutt, Aberdeen, resigned.

Physician Sued.—Dr. Patrick J. Waldron, Rapid City, has been sued for $20,000 by a patient who alleges that amputation of her leg was necessary on account of the mismanagement of the case by the physician.

Addition to Hospital.—A large addition is to be made to the large post hospital at Fort Meade. Plans have been received and it is expected that the contract for the erection of the new building will soon be awarded.

State Board of Medical Examiners.—Under the new law the Governor has made the following appointments to the State Board of Medical Examiners: Regulars—Drs. Stephen Olney, Sioux Falls; John W. Freeman, Lead; John L. Foxton, Huron, and H. E. McNutt, Aberdeen. Homeopaths—Drs. Alonzo A. Cotton, Vermillion, and Hans M. Finnerud, Watertown. Eclectic—Dr. Harry S. Graves, Hurley. The board organized by the election of Dr. Stephen Olney, president; Dr. Harry S. Graves, vice-president, and Dr. H. E. McNutt, secretary and treasurer. The first examination will be held in Sioux Falls, July 8.

GENERAL.

Cholera has reappeared at Manila and in the archipelago and is increasing with the return of the hot season.

The Association of American Medical Colleges met, under the presidency of Dr. William L. Rodman, at New Orleans, May 4 and 5. The principal business was the consideration of the report of the Committee on By-laws, which advocated and recommended the raising of entrance requirements. The report was adopted with a few amendments, to go into effect July 1, 1905. The officers for next year are: President, J. R. Guthrie, Dubuque, Iowa; first vice-president, George M. Kober, Washington, D. C.; second vice-president, J. Oliver, Cincinnati; secretary-treasurer, Fred C. Zapffe, Chicago; judicial council, W. J. Means, Columbus, Ohio; J. M. Dodson, Chicago; T. J. Hawkins, Denver; H. B. Ward, Lincoln, Neb.; Randolph Winslow, Baltimore; J. D. Griffith, Kansas City, Mo., and J. W. Holland, Philadelphia.

FOREIGN.

Homage to Huchard.—The friends and pupils of Prof. H. Huchard of Paris are collecting subscriptions to present him with a bronze plaque on the occasion of his promotion to be officer in the Legion d'Honneur.

Hygienic School Hours.—In Galicia the grammar schools have a single session, from 8 till 1, and the desirability of a change has been discussed. The medical association advised in favor of the present hours, as an afternoon session interferes with digestion and assimilation, while the best mental work is done in the morning. Owing to the prevailing local social, economic and climatic conditions the association believed that two sessions would entail many more disadvantages than the present plan.

Romiti's Silver Jubilee.—Prof. G. Romiti of Pisa celebrated, March 5, the twenty-fifth year of his incumbency of the chair of anatomy at Siena and Pisa. He was presented with a souvenir volume of the "Archivio Italiano di Anatomia ed Embriologia," a gold medal and several scientists gave him special volumes of their works. The chairs of anatomy at five other Italian universities are now occupied by his pupils and two others by pupils of those who have studied with him. His manual of anatomy is the text-book in use in Italy, and he has published more than a hundred monographs on anatomy and embryology.

Campaign Against Charlatans in Germany.—One of the deputies in the Wurtemberg legislature recently urged that the government should assist physicians in their campaign against charlatans more than heretofore. He also stated that the struggle in which the physicians are now engaged against the starvation fees given by the sick benefit societies is a laudable effort to counteract the degradation and proletarianizing of the medical profession. The minister of the interior replied that the matter was one for the general government to decide, not the states for themselves, but that the imperial Reichstag would find that the Wurtemberg assembly would be glad to co-operate with the general government in the matter.

The National Asylum for Insanity of Rio de Janeiro.—Dr. Julians Moreira, professor of psychiatry and neurology in the Medical School of Bahia and co-editor of the "Gaseta Medica" of Bahia, has been appointed director of this great asylum. The institution is to be enlarged shortly by the addition of new buildings, the ground for which, adjoining the present property, has already been purchased. The erection of these new buildings will increase the capacity of the hospital to 1,000 beds instead of the present 900 beds. Funds for the erection of the buildings are available, which will be sufficient to provide for a modern equipment of the new wards. Plans for the new epileptic ward are being prepared. It will be detached from the other buildings.

The Contract Practice Troubles in Germany.—The agitation in regard to the pending legislation to increase the length of medical attendance for members of sick benefit societies, the "Muenchener Med. Wochft." declares, is by no means confined to South Germany, as quoted in our last number. It is able to cite proceedings of various medical organizations, etc., which show that the movement is nearly general. The necessity of energetic measures to compel the societies to increase the remuneration for the double task to be imposed is rousing physicians to mold public opinion through the daily papers. A number of lay papers have recently contained articles, evidently written by physicians and having a marked effect in enlightening the public. Among the best is an article by Dr. F. Haker of Munich, published in No. 90 of the "Allg. Ztg.," entitled "The Position of German Physicians and Their Struggle Against the Decline of the Profession," and mentioned as a model of captivating and dignified style. The arbitration at Mülhausen was fruitless, and the physicians have resumed their former attitude, refusing to serve further as contract physicians and not only demanding the ordinary rates for medical attendance, but refusing credit. Consequently, the officers of the societies have to be accessible to the members at any hour, day or night.

Physicians' Insurance Association at Vienna.—The Vienna "Medical Doktoren-Collegium" now has a membership of 715 physicians, with a capital of about $1,700,000. One of the features is the "widows' and orphans' society," with 404 members. It paid pensions to 187 widows and 3 groups of orphans, about $50,000 in all, last year. The "support institute" had 238 members and its fund amounted to $85,000. It supplied permanent support to 6 members and temporary to 10, expending $2,000 in this way. The "pension institute" had 238 members and a fund of $280,000. It pays out $240 annually to 36 pensioners, and paid to the heirs of deceased physicians about $1,520 during the year. There is also a "health resort fund" to enable members of the collegium to have the benefit of a course of mineral waters or trip elsewhere. There are also endowments for needy physicians, 35 representing $40 to $176 a year; 12 for widows and orphans of physicians, and 16 for the sons of physicians, representing $8.50 to $236 a year and free places in the institutes. The collegium sent out 80,000 circulars last year to physicians throughout Austria, endeavoring to secure new adherents, but only 80 responded and, as 41 died or resigned, the gain was merely 39. A letter from Vienna to the "Munich Med. Wochft." comments that this apathy in regard to such an important organization, with dues 15 per cent. less than lay insurance societies, can be attributed only to indolence on the part of the majority of the profession, or else that the majority are in such financial straits that even the modest dues required are beyond their reach—probably both causes co-operate, the writer concludes. Switzerland has two similar medical insurance societies, the combined capital about $38,000. One is 3 and the other 20 years old.

Book Notices.

THE SURGERY OF THE HEAD. By Bayard Holmes, B.S., M.D., Professor of Surgery in the University of Illinois. Cloth. Pp. 569. Price, $2.50. New York: D. Appleton & Co. 1903.

The mass of surgical facts regarding bacteriology and histology accumulated within the present era is awe-inspiring. Only specialists can hope to master a tithe of them; and individuals can scarcely expect to write systematic and comprehensive text-books of surgery. Indeed, attempts to include facts and principles in treatises by a single author have almost been abandoned, while composite works of great bulk, in which each chapter is assigned to an individual writer, have long been the order of the day. Of late even an encyclopedia of surgery has been in course of preparation and issue under the editorship of the distinguished Kocher. Thus facts are given the maximum prominence, while the principles, the informing and unifying pathologic spirit of surgery are likely, at least in this instance, to suffer total eclipse.

Billroth's classical "Principles of Surgery" has run through nearly twenty German editions, has been printed in many languages, and is profitable classical reading to-day. This is true because Billroth recognized the permanent and immutable as well as the temporary verities of surgery.

Holmes' book is founded on an accurate knowledge of the modern principles of pedagogics. He realizes that the student who learns a general principle of surgical pathology or practice is, by the very acquisition, a changed man. If many principles are learned, the theory of surgery is in the grasp of the student. Holmes' book is written in a new old way and represents a return to the simpler style of a simpler surgery. Actual clinical cases are used as a starting point in treating principles, and in the choice of these cases the writer has not depended on his own experience alone but has freely quoted from current literature. The charm of Sir Astley Cooper, of Trousseau and of Billroth is in these simple pages. He who is in search of catalogued facts will consult an encyclopedia, a book of logarithms or interest tables, as need may indicate. But every seeker for the subtle relation between fact and theory which, when acquired, makes the real surgeon rather than the mere technician will read this new work. Practitioner and student may thus find equal profit in its pages. We predict that not only will this work find many readers but also many imitators, and that to the lasting profit of our genial art.

THE EVOLUTION OF MAN AND HIS MIND. A History and Discussion of the Evolution and Relation of the Mind and Body of Man and Animals. By S. V. Clevenger, M.D., Author of Medical Jurisprudence of Insanity. Cloth. Pp. 615. Price, $5.00. Chicago: Evolution Publishing Co. 1903.

This is a comprehensive work, covering the history, ethnology, biology and sociology of humanity in a compass of a little over 600 pages. The author is evidently a man of wide reading and a naturally suggestive and ingenious thinker. Notwithstanding his generally scientific accuracy, we notice several places wherein one might think that his information has been erroneous. At least, in some instances, he appears to have accepted as facts statements that draw on the credulity of the reader and seem to us somewhat irrational. Among these statements we can include such a one as that of the osteopathic school in Missouri selecting its anatomic subjects "on the hoof" in one of the asylums and some few other like instances, indicating a lack of faith in modern popular and political administration, which we think is undeserved. There is also a strong element of the author's personality evident in many of the pages in his comments on current matters, politics and the questions that come up from time to time in the newspapers. Perhaps the best chapters are those on heredity, hunger and love, the development of the mind, the senses and feelings and the instincts and emotions. The chapter on superstition will not suit the average believer in the Christian or in any other special religion, for the author is evidently, in his beliefs, what is sometimes called "broad" and his remarks on the subject are rather heterodox. His views on sociology also have several points for criticism, though, in the main, there is much of which everyone must approve. We regret that the author did not take time to get up an index, for a book of this character without an index is very unsatisfactory. It is not a book that one will pick up and read through as one would read a novel—at least the average individual will not do this—but there are subjects covered that one would be glad to look up in an index without having to wade through several chapters to find what is wanted.

THE MYCOLOGY OF THE MOUTH. A Text-Book of Oral Bacteria. By Kenneth Weldon Goadby, D.P.H. Camb., L.R.C.P., M.R.C.S., L.D.S. Eng., Bacteriologist and Lecturer on Bacteriology, National Dental Hospital. With Illustrations. Cloth. Pp. 241. Price, $3.00 net. London, New York, Bombay: Longmans, Green & Co. 1903.

The reason for use of the term "mycology," says the author, is that the micro-organisms of the mouth include species belonging to the higher orders than the bacteria or schzomycetes. The duplication of terms seems wholly unjustifiable since bacteria are bacteria wherever they may be found. While this work of some 240 pages is not strictly original, the author has brought together all that is known up to the present time on the bacteria of the mouth. The work is conveniently divided into thirteen chapters with an appendix. Much of the early work of Miller and Leon Williams is recognized, while the author has added considerable from his own research. The micro-photographic illustrations are excellently done. While many believe in schematic illustrations for the student, experience has proven that micro-photographs give a better idea of what is found when the student is searching for a given object. There is no reference to many American authors, although considerable work has been done along this line in this country.

MUCO-MEMBRANOUS ENTERO-COLITIS. Symptoms, Complications, Etiology and Treatment. By Maurice De Langenhagen, M.D., Consulting Physician at Polombieres, Vosges, France. Cloth. Pp. 115. Price, $1.25. London: J. & A. Churchill. Philadelphia: P. Blakiston's Son & Co. 1903.

This little work is written by a local specialist who has taken up a comparatively limited subject, but one which, because of its frequency and associations, is certainly worthy of a monograph. Muco-membranous colitis is one of the commonest accompaniments or, perhaps, causes of neurasthenic conditions, and a better knowledge of its symptoms and management is certainly desirable. The author points out its frequency in Europe, and we believe it is hardly likely to be found less frequent in this country, though, unfortunately, it has not received the attention that it deserves. While not a fatal disorder, it is sometimes an exceedingly obstinate and refractory one and anything that will enlighten us as to its treatment is of advantage. The volume is likely to be of service, therefore, to the general practitioner.

A TEXT-BOOK OF PHARMACOLOGY AND THERAPEUTICS, or the Action of Drugs in Health and Disease. By Arthur R. Cushny, M.A., M.D. Aberd., Professor of Materia Medica and Therapeutics in the University of Michigan. Third Edition, Revised and Enlarged. Illustrated with 52 Engravings. Cloth. Pp. 756. Price, $3.75. Philadelphia and New York: Lea Brothers & Co.

The appearance of the third edition of Cushny's pharmacology and therapeutics, only eighteen months after the preceding one, shows the favor with which the book has been received. The present edition contains certain additions, such as fuller remarks on spinal anesthesia, suprarenal extracts, etc. The author has also appended to this edition a classification of drugs according to their therapeutic uses, which he has found useful in his teaching of pharmacology.

State Boards of Registration.

Maine Report.—Dr. A. K. P. Meserve, Portland, secretary of the Maine Board of Registration of Medicine, reports the examination held at Augusta, March 24, 1903, as follows: Number of subjects examined in, 12; total questions, 80; percentage required to pass, 75 average and not less than 60 in any one branch; examination was partly oral and partly written; total number examined, 7; all of whom passed.

PASSED.

Candidate.	Sch. of Pract.	College.	Year Grad.	Per Cent.
497	R.	Coll. Phys. and Surg., Baltimore...	1895	88.5
501	R.	Coll. Phys. and Surgs., Baltimore...	1896	87 2-7
498	R.	Baltimore Univ. School of Med....	1902	87.3
499	R.	Dartmouth Medical College.....	1901	90 1-7
500	R.	Harvard University	1901	84.6
502	R.	Harvard University	1902	92 1-7
503	R.	Univ. of Pennsylvania Med. School.	1902	90 3-7

District of Columbia Report.—Dr. Wm. C. Woodward, secretary of the Board of Medical Supervisors of the District of Columbia, reports the examination held at Washington, April 9, 1903, as follows: Subjects, 17; 80 written questions; percentage required, 75; examination was partly oral and partly written; total examined, 14; passed, 9; failed, 5.

PASSED.

Candidate.	Sch. of Pract.	College.	Year Grad.	Per Cent.
362	R.	University of Virginia.....	1901	84.46
363	R.	University of Virginia.....	1897	81.87
364	R.	University of Pennsylvania.....	1888	88.81
365	R.	Georgetown University	1902	84.43
371	H	Hahnemann Med. Coll., Phila.....	1902	87.98
374	H.	Hahnemann Med. Coll., Phila.....	1902	89.12
372	R.	Howard University	1902	78.75
373	R.	Coll. of Phys. and Surgs., N. Y. City	1899	84.78
354	R.	Columbian University	1900	87.87

FAILED.

366	R.	National University	1902	*74.50
369	R.	National University	1901	†71.46
367	R.	Baltimore Medical College.....	1898	55.43
368	R.	Howard University	1902	74.09
370	R.	Women's Med. Coll. of Pennsylvania	1867	56.21

* Second examination.
† Fourth examination.

Medical Organization.

Outagamie County (Wis.) Medical Society.

The physicians of Outagamie County have organized a medical society to be affiliated with the Wisconsin State Medical Society and the American Medical Association.

Seward County (Neb.) Medical Society.

The physicians of Seward County met at Seward, April 24, and organized a county society, with the following officers: Dr. Charles W. Doty, Beaver Crossing, president; Dr. Jefferson T. Potter, Seward, vice-president, and Dr. Charles O. Petty, Beaver Crossing, secretary.

McDowell Medical Society.

Physicians of Franklin, Gasconade, Osage and Maries counties, Mo., met at Owensville, April 4, and organized a district medical society, with the following officers: Dr. John D. Seba, Bland, president; Dr. James E. Jose, Koenig, vice-president; Dr. A. C. Wood, Owensville, secretary, and Dr. Julius W. Nieweg, Owensville, treasurer.

Tompkins County (N. Y.) Medical Association.

The members of the Third District Branch residing in Tompkins County met, April 14, and organized this association. The following officers were elected: President, Dr. John S. Kirkendall, Ithaca; vice-president, Dr. William C. Douglass, Ithaca; secretary and treasurer, Dr. Marcus A. Dumond, Ithaca. Dr. Chauncey P. Biggs was elected fellow and Dr. E. R. Osterhout, alternate.

Otero County (Colo.) Medical Society.

This society met in January and reorganized under the new constitution and by-laws as recommended by the American Medical Association. The following officers were elected for the ensuing year: Dr. B. F. Haskins, La Junta, president; Dr. E. W. Kearby, Rocky Ford, vice-president; Dr. Arthur R. Timerman, La Junta, secretary; Dr. James F. Kearns, La Junta, treasurer, and Dr. Frank Finney, La Junta, member of the house of delegates.

Societies.

COMING MEETINGS.

Association of Military Surgeons of the United States, Boston, May 19-21.
New Hampshire Medical Society, Concord, May 21-22.
North Dakota State Medical Society, Bismarck, May 21-22.
South Dakota State Medical Society, Mitchell, May 27-28.
Connecticut Medical Society, Hartford, May 27-28.
West Virginia State Medical Association, Charleston, May 26-28.
Indian Territory Medical Association, South McAlester, June 2-3.
Medical Society of the State of North Carolina, Hot Springs, June 2.
Ohio State Medical Society, Dayton, June 3-5.
Rhode Island Medical Society, Providence, June 4.
Wisconsin State Medical Society, Milwaukee, June 3-5.
Maine Medical Association, Portland, June 3-5.
Indiana State Medical Society, Richmond, June 4-5.
Medical Society of Delaware, Dover, June 9.
Massachusetts Medical Society, Boston, June 9-10.
Michigan State Medical Society, Detroit, June 11-12.
Minnesota State Medical Society, St. Paul, June 17.
Medical Association of Montana, Helena, June 17-18.
Medical Society of New Jersey, Asbury Park, June 23-25.

Medical Society of Nova Scotia.—The thirty-fifth annual meeting will be held in Antigonish, July 1 and 2.

Maritime Medical Association.—The thirteenth annual meeting will be held in St. John, N. B., July 22 and 23.

American Electro-Therapeutic Association.—The thirteenth annual meeting will be held at Atlantic City, N. J., September 22, 23 and 24, under the presidency of Dr. Daniel R. Brower, Chicago.

Buffalo Academy of Medicine.—The nomination of officers resulted as follows: President, Dr. Joseph W. Grosvenor; secretary, Dr. Edwin A. Bowerman; treasurer, Dr. Charles S. Jewett, and trustee, Dr. Ludwig Schroeter.

Eastern Dakota Medical Association.—The annual meeting was held at Brookings, S. D., April 14, Dr. Albert J. Cox, Tyler, Minn., was elected president; Dr. Edwin Klaveness, Brookings, vice-president, and Dr. Joseph G. Parsons, Brookings, secretary and treasurer.

La Salle County (Ill.) Medical Society.—The fiftieth annual meeting was held in Ottawa, April 21. Dr. William S. Sterrett, Marseilles, was elected president; Dr. Fred A. Guthrie, La Salle, vice-president; and Dr. William A. Pike, Ottawa, secretary. Next year's meeting will be held in Streator.

Seneca County (N. Y.) Medical Association.—At the annual meeting held in Seneca Falls, April 16, the following officers were elected: President, Dr. William A. Macy, Willard; vice-president, Dr. George A. Bellows, Waterloo; secretary, Dr. J. Spencer Purdy, Seneca Falls, and treasurer, Dr. Carroll B. Bacon, Waterloo.

De Witt County (Ill.) Medical Society.—At the annual meeting Dr. Joseph C. Myers, Clinton, was elected president; Dr. Samuel L. Thorpe, Kenney, vice-president; Dr. John H. Tyler, Clinton, secretary and treasurer; Dr. Albert E. Campbell, Clinton, delegate to the Illinois State Medical Society, and Dr. Guy G. Dowdall, Clinton, alternate.

Hunterdon County (N. J.) Medical Society.—The annual meeting was held at Flemington, April 28. Dr. William H. Schenck, Flemington, was elected president; Dr. Leon T. Salmon, Lambertville, first vice-president; Dr. Peter C. Young, Ringoes, second vice-president; Dr. Obadiah H. Sprowl, Flemington, secretary; Dr. Isaac S. Cramer, Flemington, treasurer.

District Medical Society of Central Illinois.—At the twenty-ninth annual meeting held in Pana, April 21, the following officers were elected: President, Dr. John H. Miller, Pana; vice-presidents, Drs. Thomas E. Cherry, Cowden, and William J. Eddy, Shelbyville; treasurer, Dr. John N. Nelms, Taylorville, and secretary, Dr. Frederick J. Eberspacher, Pana. The next meeting will also be held in Pana.

American Laryngological, Rhinological and Otological Society.—The ninth annual meeting was held at Lexington, Ky., April 23, 24 and 25, under the presidency of Dr. Joseph A. Stucky. The following officers were elected: President, Dr. Norval H. Pierce, Chicago; vice-presidents, Drs. George L. Richards, Fall River, Mass., Chevalier Jackson, Pittsburg, Redmond W. Payne, San Francisco, and John F. Woodward, Norfolk, Va.; secretary, Dr. Wendell C. Phillips, New York, and treasurer, Dr. Ewing W. Day, Pittsburg.

Alumnae Association, Woman's Medical College.—The alumnæ met for the twenty-third annual meeting at Chicago, April 29, about 60 being in attendance. The following officers were elected: President, Dr. Sarah Hackett Stevenson, Chicago; vice-presidents, Drs. Mary E. Bates, Denver, and Anna Ross Lapham, Chicago; secretary, Dr. Eliza H. Root, Chicago; treasurer, Dr. Mary C. Hollister, Chicago, and executive committee, Drs. Anna E. Blount, Oak Park, Ill., Rose Millard, Chicago, and Minnie K. Bowles, Joliet, Ill.

Association of Railway Surgeons of the Pacific Slope.—At the annual meeting held recently in Santa Barbara, Cal., resolutions were passed expressing regret at the death of Dr. Matthew Gardner. The following officers were elected, after which the association adjourned out of respect to the memory of Dr. Gardner: Dr. Walter B. Coffey, San Francisco, president; Drs. Norman H. Morrison, Los Angeles, Charles N. Ellinwood, San Francisco, and Kenneth A. J. Mackenzie, Portland, Ore., vice-presidents; Dr. James P. Dunn, Oakland, secretary, and Dr. Frank K. Ainsworth, Los Angeles, treasurer.

Massachusetts Association of Boards of Health.—At the meeting in Boston, April 30, Mrs. Ellen M. Richards spoke on "Educational Sanitary Inspection," and Mrs. von Wagner told of the way in which the poor of Yonkers, N. Y., are taught to abate nuisances and live decently. Dr. Frank L. Morse of the State Board of Health spoke on "The Recent Smallpox Epidemic in Massachusetts, giving a powerful statistical and practical plea for universal and repeated vaccination. Last year the disease was more prevalent than at any time since the epidemic of 1872. During the year there were 2,300 cases, with 278 deaths in the state. Out of this number of deaths 200 were of persons who had not been vaccinated. The association took action favoring the state production of antitoxin and vaccine.

LOUISIANA STATE MEDICAL SOCIETY.

Twenty-fourth Annual Meeting, held in New Orleans, April 28 to 30, 1903.

The President, Dr. Isadore Dyer, in the Chair.

Opening Sessions.

The morning session was largely devoted to organization. The address of welcome was delivered by Hon. Arthur McGuirk. The report of the Committee on Arrangements was presented by Dr. Louis G. LeBeuf.

The president, Dr. Isadore Dyer, New Orleans, in his preliminary remarks, noted the fact of the paucity of local societies and that the profession in Louisiana is just awakening to the fact that it is only by a spirit of fraternity among the units that broader community interests can be created. He commended and advised the adoption of the constitution as suggested by the American Medical Association for state societies, and believed that it must ultimately obtain in every state where cohesion of medical men is desired.

Salt as a Stimulant.

DR. S. L. WILLIAMS, Oak Ridge, read a paper in which he considered the use of normal salt solutions in the treatment of septic and toxic conditions. His experience for the past three years has demonstrated the efficiency of salt solution and butter administered subcutaneously and percutaneously in enteric fever and scarlet fever. In case of habitual alcoholics the treatment was not efficient.

Malarial Hemoglobinuria.

DR. LADIS LAZARO, Washington, presented a paper on this subject, which brought out active discussion, bearing chiefly on the use or non-use of quinin in malarial diseases; the advocates and opponents of quinin fighting, without coming to any conclusion, the battle which has been fought for years and always without decisive results.

Anesthesia.

DR. T. EDGAR SCHUMPERT, Shreveport, read a report on chloroform anesthesia at the morning session of the second day, detailing methods to be followed in the administration of the anesthetic by which danger can be avoided and exhibiting an appliance to be employed in its administration. In the discussion the necessity of a preliminary examination of the patient was emphasized and the use of adrenalin to overcome the effect of chloroform in extreme cases was mentioned.

Secretary's Report.

DR. WILLIAM M. PERKINS, New Orleans, recording secretary, reported that the active membership of the society was 420.

New Constitution.

The discussion of the constitution was taken up, and Dr. Charles Chassaignac, chairman of the Committee on Revision, presented a draft of the constitution proposed by the American Medical Association. After considerable discussion, this was adopted with minor amendments.

President's Address.

At the evening session Dr. Isadore Dyer delivered the annual presidential address, his subject being "The Art of Medicine." After discussing medicine from the days when fetishes, charms, incantations, etc., were in vogue, he went on to say that medicine is still combating the weaknesses that hamper its progress, with the purpose, in the future, of conquering the great enemy, death. In conclusion he said:

The profession of medicine has sat at the footstool of science, now and then gathering some of the leaves which have fallen from the hands of the alma mater of all knowledge. Again, some more emboldened spirit has snatched a full garland and has carried it off to render a proper return in advanced knowledge.

One great man after another has died with the regret of neglected achievement, not fearful of death, but sad at leaving so much undone. A host of men have blazed the way for the art medical; many have dropped into the pool of forgetfulness the emblems of their trade and have lifted heavy burdens for the art itself; some have hewn long with small reward, while others have marked grand highways through the wilderness of ignorance and bigotry.

It is not only the songs of the birds in the forest, nor the rustling leaves, nor the smell of freshness which makes the springtime, but without these things there could be no springtime. And so there must be in the art of medicine, of such kind as you will, but not barren, rather a fruitful one, carrying with it the sentiments of community of interests, of achievements, of earnestness, of fraternity, so that in the days to come we may think of the Temple of Hygeia and of the Great Healer as forever free of those sorts of death which are only evil shadows after all.

Yellow Fever.

DR. EDMOND SOUCHON, New Orleans, in his paper entitled "Facts Relating to the Transmission of Yellow Fever," detailed experiments with mosquitoes captured on fruit vessels coming from Central America, from which he drew the deduction that mosquitoes are not the only means of communicating the disease. This paper will appear in full in THE JOURNAL.

In the discussion Dr. J. M. Lindsley of Havana stated that he believed the mosquito was the primary means of transmitting yellow fever, and thought if the board of health at Havana had acted on this theory a few years ago many lives might have been saved.

Dr. Oliver L. Pothier supported Dr. Lindsley's views, and Dr. Souchon closed the discussion by declaring that, while he desired to be liberal, the ones who suffer must be considered when the question of exposure is brought up, and that leniency towards Cuba would be further extended when the health authorities were satisfied that the danger of transmission from yellow fever from that country had ceased to exist.

Quarantine.

DR. ARTHUR NOLTE, New Orleans, gave the history of the efforts to quarantine against yellow fever at New Orleans during many years and of the great results accomplished during the epidemics there. He detailed the present methods of disinfecting vessels.

Dr. Lindsley made a second appeal for impartiality in the enforcement of quarantine regulations between Cuba and other tropical countries.

Dr. Quitman Kohnke presented a very comprehensive history of Louisiana quarantine against yellow fever from the time of earliest legislation up to the present day.

Illegal Practitioners.

DR. CHARLES L. CHASSAIGNAC, New Orleans, called attention to the reference in the report of the State Board of Medical Examiners to the prosecution of illegal practitioners in the state during the last year and urged that more rigor be used in guarding the profession.

Dr. A. Feltus Barrow, St. Francisville, president of the State Board of Medical Examiners, declared that he was not satisfied with the enforcement of the law and hoped that some decided action would be taken. He said that many students from Tulane University, on receiving their diplomas, fall into the hands of fakers of the profession who use them and their names to further their illegal practice.

Dr. Chassaignac stated that the difficulties attendant on prosecutions had been due to the lack of evidence and the lack of organization, and urged organization in the profession in order to accomplish the ends in view.

Pasteur Institute.

DR. CHARLES L. CHASSAIGNAC introduced resolutions which were adopted without discussion, pledging the support of the members of the society to the establishment of a Pasteur Institute in New Orleans, and declaring in favor of the institute being made a part of the Tulane University, urging all physicians in the state to secure state and city and private donations; requesting the co-operation of the Orleans Parish Medical Society, and directing the president of the state society to appoint a member in each parish to supervise the movement therein.

Election of Officers.

The report of the Nominating Committee was adopted, whereby the following officers were elected: President, Dr. John M. Barrier, Delhi; vice-presidents, Drs. J. F. Buquoi, Pointe-a-la-Hache; John Callan, New Orleans; Frederick R. Tolson, Lafayette; Norwood K. Vance, Shreveport; S. L. Williams, Oak Ridge; Charles M. Sitman, Greensburg, and Arthur Gardner, Bristol; recording secretary, Dr. William Perkins, New Orleans; corresponding secretary, Dr. Andrew G. Freiderichs; treasurer, Dr. Henry S. Cocram, New Orleans;

delegate to the American Medical Association, Dr. Rudolph Matas, New Orleans; alternate, Dr. Louis G. LeBeuf, New Orleans, and additional delegate, Dr. Whyte Glendower Owen, White Castle.

1904 Meeting.

Lafayette was selected as the place of meeting for 1904, and the date May 3 to 5.

Banquet.

The local members tendered a banquet to the society at the West End Hotel, which was attended by over 200 guests. Dr. Quitman Kohnke was the toastmaster, and toasts were responded to by Drs. H. W. Foote, Ernest Lewis, Joseph Hart, Derold Wilders and Owen.

NEW YORK ACADEMY OF MEDICINE.

Regular Meeting of the Section on Pediatrics, April 9, 1903.

Henry Heiman, M.D., in the Chair.

Result of Operation for Intussusception.

DR. JOHN F. ERDMANN reported three successful cases of operation for intussusception. The first was an infant of about four and a half months, first seen twenty-three hours after the onset of symptoms. Bloody mucus was passed per rectum, but no tumor could be felt. The operation revealed a double intussusception—an intussusception of the ileum within itself and an intussusception of the ileum within the colon. The appendix was not involved, but was removed after reduction of the intussusception.

The second patient was an infant of six months, in whom no tumor could be felt, but one was visible on the left side of the abdomen. There were continuous abdominal pain and bloody discharges. In this case also there was a double intussusception, and here the appendix was included.

The third patient was 5½ years old. There was no history pointing to intussusception and no fever, but there was continuous pain in the abdomen, with resistance in the right side of the abdomen. An ileocolic intussusception was found and was reduced.

DISCUSSION.

DR. H. LILIENTHAL said that, while recovery occasionally followed the employment of hydrostatic pressure, this method was decidedly dangerous—indeed, no case of intussusception of sufficient severity to give rise to symptoms should be treated by other than surgical means.

Inversion in the Treatment of Acute Pulmonary Edema in Young Children.

DR. THOMAS S. SOUTHWORTH reported the case of an infant, suffering from very severe and acute edema of the lung, wherein inversion and stroking pressure on the back gave prompt and marked relief by causing the discharge of much frothy mucus. The child had no cardiac disease, and the attack was supposed to have been induced by acute indigestion.

Pin Worms in the Appendix.

DR. J. F. ERDMANN exhibited an appendix containing numerous pin worms. The child had suddenly become acutely ill, and this was what was encountered at the operation.

DISCUSSION.

DR. HENRY HEIMAN said that the case was interesting because it was generally believed that the pin worms were only found in the rectum or descending colon.

The Surgical Features of Perforation of the Intestine in Typhoid Fever in Children.

DR. CHARLES A. ELSBERG presented a paper on this subject, in which he gave the results in the 289 operative cases on record. There were altogether 75 recoveries, or 25.9 per cent., and of the 25 patients who were under 15 years of age 16, or 64 per cent., recovered. Dr. Elsberg reported a recent case on which he had operated, which was, by the way, the youngest operative case on record, the patient being 6½ years old. About two weeks after the operation a vaginal discharge made its appearance, and in this was found a pure culture of typhoid bacilli. The frequency of intestinal perforation in children suffering from typhoid varied greatly in different series. Thus, Dr. J. Lovett Morse saw 284 cases of typhoid in children without once meeting with this complication, whereas Dr. Fitz met with it seven times in 192 cases. Holt collected 1,028 cases in children, and found that intestinal perforation occurred in 12, or 1.1 per cent. In practice it was well-nigh impossible to differentiate this complication from peritonitis.

The author's cases of operation were 25 in number, of which 14 were between 9 and 12 years of age. Eighteen of the patients were males, a fact difficult of explanation. It was noted that the facial expression changed in 11 cases, but that it never occurred early, and ordinarily not until other signs and symptoms had made the diagnosis of intestinal perforation reasonably certain. The pulse, respiration and temperature afforded little or no assistance in diagnosis, and although leucocytosis occurred at the time of the perforation, it was exceedingly evanescent, probably because of the great outpouring of the leucocytosis into the peritoneum when this membrane became infected. The first symptom in 20 cases was pain in the lower part of the abdomen, usually paroxysmal, and associated with or speedily followed by abdominal tenderness. Rigidity of the abdominal muscles was noted in 14 cases. The perforation most often occurred in the third week of the disease or in relapses.

The effect of delay in operating on the result was shown by the following figures regarding the interval elapsing between the occurrence of the perforation and the operation: Two cases operated on in the first four hours gave 100 per cent. of recoveries; 3 cases operated on within the second four hours yielded 66.7 per cent. of recoveries; 7 cases were operated on within the third four hours with 71.4 per cent. of recoveries; in 3 cases the operation was done within the fourth four hours with 100 per cent. of recoveries; 1 case was operated on within the fifth four hours, and 1 in the sixth four hours without a recovery. Seven cases were not operated on until after the end of the first twenty-four hours, and here there were 57 per cent. of recoveries. In one of the fatal cases the interval was not known. The operation appeared from the statistics to be twice as successful in children as in adults, the most important element in the prognosis being rapidity of operating.

DISCUSSION.

DR. LILIENTHAL said that he could vouch for the correctness of the diagnosis in the case reported in the paper in which a child had recovered from a typhoid perforation of the bowel without operation. The mortality rate given was probably too low, for it was more than probable that many of the unsuccessful cases had not been reported.

DR. ERDMANN suggested that the typhoid bacilli might have gained access to the vagina in the case reported as a result of the bursting of an abscess, or possibly by migration through the tubes and uterus.

DR. M. MANGES pointed out that in children the occurrence of shock was apt to be overlooked because of the occurrence of fever, but it would be denoted by the presence of perspiration.

DR. HEIMAN said that a secondary anemia developing in the third week of typhoid might so depress the nervous system as to simulate intestinal perforation, and the same was true of the breaking down of a mesenteric gland. It was highly improbable that the typhoid bacilli could migrate through the tubes and uterus of a child of 6 years because of their rudimentary condition at that age.

DR. ELSBERG, in closing the discussion, remarked that, as all of the cases he had reported occurred in one year, it was quite possible that another year, with a different type of typhoid, might yield very different results.

Treatment of the Paroxysms of Whooping Cough by Pulling the Lower Jaw Downward and Forward.

DR. JACOB SOBEL said that this method had been first suggested years ago by a Swiss physician, O. Naegela, but had apparently been overlooked by most pediatrists. Dr. Sobel had tested the method in dispensary practice in 96 cases. In only 9 cases was there absolutely no effect on the paroxysm at the time of the child's visit to the dispensary. Very young children, not knowing the meaning of what was being done, were apt to

become frightened, and by their crying neutralize the good effect of the manipulation. The physician, standing behind the child, should place both thumbs against the angles of the jaw, the index fingers on the zygomatic arch and the remaining fingers on the chin, and should then push the lower jaw downward and forward. The method had been devised in the belief that the essential element to combat was the spasm of the glottis. The spasm was so promptly controlled that it was not unusual for the whoop to be suppressed. In this way the mother or nurse could be taught to prevent the occurrence of many paroxysms, thus sparing the little one much nerve-racking distress, and, because of the control of vomiting, materially improving the general nutrition. The only contraindication was the presence of food in the mouth or esophagus. Dr. Sobel had not found the manipulation so useful in controlling other spasmodic coughs.

DR. CHARLES HERRMAN said that he had tried this manipulation in a number of cases, and in most instances with a satisfactory result. Unfortunately, for the reason already mentioned, it was not very applicable to very young children. The method probably failed to relieve the spasm of the glottis occurring in tetany because, unlike pertussis, there was, in addition to the spasm of the glottis, a general spasm of the diaphragm and other respiratory muscles.

BOSTON MEDICAL LIBRARY ASSOCIATION.

Regular Meeting, held May 4, 1903.

Dr. W. T. Councilman in the Chair.

The Pathology and Etiology of Smallpox.

The meeting was devoted to a fuller statement of three of the phases of the subject, studied in connection with the purpose of finding the cause of variola.

THE BACTERIOLYTIC COMPLEMENT CONTENT OF THE BLOOD SERUM IN VARIOLA.

DR. RALPH L. THOMPSON explained the terms "complement content" and "amboceptor," and stated Ehrlich's hypothesis, which is an explanation of individual immunity or susceptibility to infection.

The two great difficulties in the study are the method and the lack of any accurate knowledge of the nature or composition of the "complement" itself. His chief contribution is the discovery that another serum, for instance that of a horse, may be used as the amboceptor. This does away with the necessity of abstracting a large amount of blood from the individual, a few drops from the ear being quite sufficient, just as in the Widal tests. He has, hence, been able to study a large number of people, some being very severe cases of variola.

In all cases there is early a low "complement." Abortive cases and cases of true smallpox with all the stages but without complications have an early and rapid return to normal, beginning with the first involution of the lesions. Cases complicated with a secondary infective humor have always a low "complement," which may persist after the lesions have healed and the patient is well.

Much study is yet needed, but it would seem that this opens up a vast field for research, and is possibly a most important contribution to our means of making a more accurate prognosis.

EXPERIMENTAL STUDIES IN VACCINIA.

DR. E. E. TYZZER'S experimental studies have been conducted on the lesions of vaccinia in the cornea of rabbits and calves. Vaccine virus introduced into the cornea of a rabbit produced a great proliferation of surrounding tissue, only a slight degeneration and a very evident formation of "vaccine bodies" which grew in size and number and invaded adjoining tissue. These disappeared in from six to eleven days. The same results were observed when variola virus from an early vesicle was inoculated into the cornea of the rabbit or from the cornea of an infected rabbit to another not yet infected.

He considered this strong evidence that there is the same cause for both variola and vaccinia. When the virus of either, however, is introduced into the cornea of a calf, much degeneration and no proliferation is produced, but the same "vaccine bodies" appear.

He then demonstrated the life cycle of these bodies by diagrams and lantern slides of photomicrographs. He believes this is the asexual cycle of a sporozoon. He stated the various other explanations offered for these vaccine bodies and that he had carefully considered each of them, with the result that he is confident that he has here a living growing body.

THE SKIN LESIONS IN VARIOLA.

DR. W. T. COUNCILMAN explained the very definite nature of the course of variola and the care with which he and his associates have searched for the "protopustule" by which Pfeiffer endeavors to explain this definite course. No trace of any such pustule could be found. Nothing at all is known of the changes during the first twelve days, the period of incubation. Then we begin to get degeneration of the epithelial cells and the forcing out of fluid exudate. He showed a long series of lantern slides of photomicrographs of the skin in and near the lesions of variola from the first appearance of the papule to the condition of the scab.

He then demonstrated, as he did before the Boston Society of Medical Sciences, the peculiar bodies present in the cells of the deeper layers. He laid emphasis on the fact that during the intracellular cycle the cells were little if at all altered and the nuclei were normal. During the intranuclear cycle, however, degeneration of both is rapid. The same organisms are found in the beginning of both vaccinia and variola. Variola given to a cow will yield only the vaccinia cycle. But in man we get the second cycle, which is more complex and seems to correspond to the sexual cycle such as takes place for the malaria germ, within the mosquito as host. In the monkey, too, both cycles are obtained.

There is yet much to be done to work out completely this sexual cycle. Many of these observations were only made clear by the study of the photomicrographs of stained specimens. It has a complicated history and a complicated structure.

The organism has not been cultivated outside of the body, nor has it been observed before the appearance of the papule. Once the spores have been found in a blood vessel, suggesting thus the method of the dissemination of the disease.

Therapeutics.

[It is the aim of this department to aid the general practitioner by giving practical prescriptions and, in brief, methods of treatment for the diseases seen especially in every-day practice. Proper inquiries concerning general formulae and outlines of treatment are answered in these columns without allusion to inquirer.]

Treatment of Acute Gout.

J. R. Clemens, in "Med. News," states that in the treatment of acute gout general consideration must be given to the medicinal, dietetic and local treatment. Elimination must be kept up by means of mercurials, salines and diuretics. Unless there are indications to the contrary, the treatment should be begun by the administration of pilula hydrargyri gr. iv (.25) followed several hours later by two ounces (60.) of mistura sennæ comp. in order to relieve hepatic congestion. The following mixture should then be prescribed and continued until the motions become very free:

℞.	Magnesii sulph.	℥iss	6
	Magnesii carb.	gr. xxx	2
	Pot. citratis	gr. xxx	2
	Tinct. colchici sem.	m. x	65
	Aq. menth. pip. q. s. ad	℥i	30

M. Sig.: To be taken at one dose and repeated every four hours until the movements are free, then less often. The colchicum should be continued until all the pain in the joint has disappeared, care being observed not to produce nausea, vomiting, etc.

The patient should be told to drink freely of hot water. The local treatment of the joint, according to the author, is

most important. Warmth to the joint is very essential. As a local application the following is recommended:

℞. Sodii carb. .....ʒiii 12
Tinct. opii .....ʒii 60
Linimenti belladon. .....ʒii 60
Aquæ q. s. ad.....ʒviii 240

M. Ft. lotio. Sig.: Mix part of the lotion with an equal quantity of hot water and apply to the joint on linen well saturated as hot as can be borne by the patient.

Around the dressing a yard of thin rubber should be placed, and over this a thick dressing of cotton wool held in place by a roller bandage. The limb should then be elevated, resting on pillows. Cold should never be applied to the joint. The diet for the first day or two should consist of milk, as follows: Bread and milk; tea boiled with milk instead of water; milk puddings of tapioca, sago, rice; milk and arrowroot. After convalescence the diet may be made more liberal. The following articles should be avoided: Salt meats and salt fish; shell fish (except oysters); all rich pastries and sweets; soups of all kinds; pickled foods; the four vegetables, tomatoes, asparagus, rhubarb, green peas. Beers and wines should be avoided, as well as salt and sugar, except in small quantities. Massage should be given to the joint. The following mixture is of service as a tonic and prophylactic, and should be continued for two or three months:

℞. Potass. iodidi .....gr. x |65
Spts. ammon. arom. .....m. xv 1
Inf. gentianæ co. q. s. ad.....ʒi 30

M. Sig.: At one dose after a meal and repeated thrice daily.

F. L. Satterlee recommends the following in the treatment of gout and rheumatism:

℞. Lithii benzoatis .....ʒss 2
Sodii brom.
Potassii carb., āā.....ʒii 8
Potassii acetatis .....ʒiss 45
Sodii phos. .....ʒss 15
Syr. zingiberis
Aq. menth. pip., āā.....ʒvi 180

M. Sig.: One teaspoonful to a tablespoonful in half a glass of water every four or six hours after eating.

"Merck's Archives" recommends the following in the treatment of acute gout:

℞. Sodii salicylatis .....ʒiv 15
Sodii nitratis .....ʒiiss 10
Vini colchici rad. .....ʒiiss 10
Aq. destil. .....ʒii 60
Syrupi simplicis .....ʒiii 90

M. Sig.: One tablespoonful every four hours; or:

℞. Ichthyol .....ʒi 4
Ext. belladonnæ .....gr. x |65
Collodii .....ʒi 30

M. Sig.: To be applied externally with a brush, three times daily. And in chronic rheumatism the same periodical recommends the following:

℞. Sodii iodidi .....ʒii 8
Vini colchici rad. .....ʒiv 15
Sodii salicylatis .....ʒiii 12
Tinct. guaiaci .....ʒii 60
Syr. sarsap. co. q. s. ad.....ʒvi 180

M. Sig.: One dessertspoonful three times a day; or:

℞. Acidi salicylici .....ʒii 8
Ichthyol .....ʒiv 15
Ung. belladonnæ .....ʒiv 15
Lanolini .....ʒiv 15

M. Sig.: To be applied locally three times a day and thoroughly rubbed in; or:

℞. Aq. ammon. (concentrated) .....ʒiv 15
Olei cajuputi.....ʒi 4
Tinct. belladonnæ .....ʒi 30
Linimenti camphoræ q. s. ad.....ʒviii 240

M. Sig.: To be rubbed in thrice daily.

Salicylic Acid in Milk.

P. Schmidt, according to an abstract in "Indian Med. Record," states that the addition of a small quantity of salicylic acid to milk causes the milk to be tolerated by patients who otherwise are nauseated by its taste. From three to seven grains (.20-.50) of the salicylic acid are placed in a small quantity of milk and well stirred, this in turn is put in the quantity to be used in the twenty-four hours. The entire amount is raised to the boiling point; treated in this way the milk does not coagulate as coagulation will take place only when the proportion of salicylic acid exceeds gr. 4 (.25) to the quart. This is used in feeding infants, reducing the amount of the acid to one and a half grains to the quart.

Pertussis.

The following, according to the "Amer. Jour. of Obs." is of service in the treatment of pertussis:

℞. Tinct. stramonii sem.
Am. bromidi, āā.....ʒii 8
Elix. simplicis q. s. ad.....ʒii 60

M. Sig.: One teaspoonful to a child of five years in water every two or three hours as may be necessary to quiet the cough.

The after-treatment should consist in giving ammonium carbonate gr. 2½ (.15) every three or four hours as an expectorant, administered in a little whiskey and milk. The foregoing prescription should be given sufficiently often to control the cough.

Preventive Treatment of Pericarditis.

According to Carriere, in "Amer. Med.," the heart should be watched in all infectious diseases which are liable to cause pericarditis. If rheumatism is contracted, treatment should be carried out energetically. The following combination is recommended, to be continued for three or four days:

℞. Sodii salicylatis .....gr. xv-xlv 1-3
Syrupi aurantii .....ʒi 30
Aquæ .....ʒiii 90

M. Sig.: To be given during the twenty-four hours.

[The foregoing dose of sodium salicylate is frequently repeated as often as every two or three hours. The dose given would be too small for an adult.]

In other infections, in children, the following containing quinin is recommended:

℞. Quininæ hydrochlor. .....gr. i-ix |06-.60
Glycyrrhizin .....gr. xlv 3
Syrupi .....ʒiiss 10
Aquæ .....ʒii 60

M. Sig.: To be taken in tablespoonful doses during the twenty-four hours.

The importance of rest is emphasized. Cold to the precordial region and blistering below the clavicle are good prophylactics against cardiac and pericardiac complications, and should be applied in such cases.

Quinin Subcutaneously.

Aufrecht, in "Ther. Monatsh.," recommends that quinin be combined with urethane in order to render it more soluble, when it is desired to introduce the quinin hypodermically. The following combination is used by him:

℞. Quininæ hydrochlor. .....gr. viiss |50
Urethane .....gr. iiiss |20
Aq. destil. .....ʒiss 6

M. Sig.: To be used at one injection hypodermically.

He uses this method of medication in pneumonia and puerperal fever, injecting it into the sides of the abdomen. The ill effects of quinin are observed in a much milder degree than when administered by the mouth.

Exophthalmic Goiter.

G. R. Murray, in "The Lancet," states that any drug treatment should be persisted in for several months. He recommends convallaria in those cases where the pulse remains persistently high. Belladonna does not act well in every case, but is of great value in some of these cases. He states that the bromids should be employed when marked nervousness and tremor accompanies the trouble. He also recommends arsenic in the form of Fowler's solution, giving three or four

minims three or four times a day for a month or two. Thyroid extract should not be used.

Purulent Conjunctivitis.

G. C. Savage, in "Southern Pract.," states that conjunctivitis occurring within the first three days after birth should be considered as the result of infection and should be treated as such. Two drops of a two per cent. solution of silver nitrate or of a 10 per cent. solution of protargol should be put in each conjunctival sac. This should be done without waiting for pus formation and repeated on the following day. The silver solution should not be continued unless pus should appear, under which circumstances it should be used daily. The eyes should be thoroughly cleansed every half hour with a boric acid solution in order to prevent infection of the deeper layers of cornea.

Every two hours, after cleansing, the author recommends that eight or ten drops of the following solution be instilled into each eye:

R. Hydrastin sulph.	gr. ii	12
Tinct. opii	m. xx-xxx	1.30-2
Acidi boracici	gr. xv	1
Aq. destil.	ʒi	30

M. Sig.: Eight or ten drops to be instilled into each eye every two hours and continued until the eyes are well.

Cold should never be applied to the eyes.

Backache in Women.

Fenwick, according to an abstract in "New York Med. Jour.," states that there are four principal causes for backache in women:

1. Displacement of the uterus, the pain being due to the dragging on the uterine ligaments. The author recommends in many such cases the use of the Hodge or Zwancke pessary.

2. Pressure on the sacral nerves, due to constipation very frequently. In such cases he recommends the following:

R. Ferri phosphatis	gr. ii	12
Ext. belladonnæ	gr. 1/4	015
Ext. nucis vomicæ	gr. 1/4	015
Ext. cascaræ sagradæ	gr. ii	12

M. Ft. pilula No. i. Sig.: One such to be taken three times a day after meals.

3. Muscular atony. The pain is located in lumbar and dorsal regions and found in anemic individuals with sedentary habits.

4. Affections of the cervix uteri, under which circumstances the treatment is surgical.

Medicolegal.

No Donation for Extra Services in Smallpox Epidemic.—Section 4424 of the Compiled Laws of Michigan directs that when there is any person in a township infected with the smallpox or other sickness dangerous to the public health the township board of health shall take needed action for the safety of the inhabitants, at the charge of the county when the person himself or the person liable for his support is not able to pay for same: "Provided, that the health board shall keep and render an itemized and separate account of expenses incurred in so caring for each person." It was suggested, in the case of the Village of Durand vs. Board of Supervisors of Shiawassee County, that this provision was directory to the board of health simply. But the Supreme Court of Michigan does not so regard it. It holds that the language of the clause is that of a proviso, and a proviso which affects the whole of the preceding section. And where, after a health officer had rendered a bill for specific services rendered in connection with an outbreak of smallpox and had received his pay therefor, the village paid him an additional sum for "extra services as health officer" during such epidemic and sought to recover the same from the county, the court declares that, however equitable the claim may have been as against the village, this statute certainly never contemplated that boards of health could bind the county by voluntary donations over and above the charges preferred by those having charge of these cases. The village had met the payment of this bill, and the court adds that it sees no reason why it should not bear the expense which was voluntarily incurred.

Death from Eating Unsound Oysters.—Unsound oysters produced the death of a man carrying an accident insurance policy by passing out of the large part of the stomach, lodging in the lower part of the stomach or upper intestine, inflaming the intestinal tract and mucous membrane, causing the same to enlarge, locking the bowels, obstructing and preventing passage, and thereby producing death. The company claimed that the policy exempted it from liability for "injuries, fatal or otherwise, resulting from poison or anything accidentally or otherwise taken, administered, absorbed or inhaled," and that the act of the insured in eating the oysters fell within the terms of said provision; that he ate them voluntarily, consciously and intentionally; therefore, they were not "accidentally" taken. But the Court of Civil Appeals of Texas holds against the company. It says, Maryland Casualty Company vs. Hudgins, that it was true the insured knowingly ate the oysters, but he did not know that he was eating unsound oysters. The effect was not the natural and probable consequence of eating sound oysters, and the effect produced by the eating of the unsound oysters could not have been reasonably anticipated or foreseen by him. It was unexpected, unforeseen and unusual, and, therefore, it could not be said that he voluntarily ate the unsound oysters. This being true, his death was caused by "accidental means," as that term was used in the policy. Furthermore, if it should be conceded that the court's position on this proposition was not sound, which it does not do, it says that it is still of the opinion that the word "anything," as used in the language "poison or anything accidentally or otherwise taken, administered, absorbed, or inhaled," did not refer to eating of food ordinarily harmless, not knowing it to be unsound and dangerous in that condition. It must be interpreted as having reference to those agencies which are not strictly denominated poison, but which have some elements of poison, and which may produce death if improperly taken.

Current Medical Literature.

AMERICAN.

Titles marked with an asterisk (*) are abstracted below.

Philadelphia Medical Journal.

May 2.

1 *A Case of Perforated Ulcer in Typhoid Fever. James C. Wilson and George G. Ross.
2 *Report of a Case of Painless Amputation of the Leg After the Intraneural Injection of Cocain. John H. Gibbon.
3 *Practical Points on Pessaries, Many Old, Some New. A. Ernest Gallant.
4 *The Radical Cure of Inguinal Hernia in Infants and Young Children. Charles G. Cumston.
5 *The Paradoxical Reaction of the Pupil in Accommodation, with a Report of Three Cases. William G. Spiller.
6 *A Study of the Brain-Weights of Men Notable in the Professions, Arts and Sciences. Edward A. Spitzka.
7 A Case of Endothelioma Occurring Within the Nasal Fossæ. Wm. Hitschler and George B. Wood.

1. **Typhoid Perforation.**—In Wilson and Ross' case the patient was nervous and restless and perspired freely eighteen to twenty hours prior to the probable time of the accident, and they ask whether the ulcer as it approached the peritoneal coat could not cause a vasomotor disturbance sufficient to account for the symptoms. When the perforation occurred the initial pain was referred to the penis and persisted there for twelve hours without being referred to the abdomen. The question is asked whether this pain could be due to the proximity of the inflammatory area to the ureter or bladder. There was a lack of collapse, the temperature remained high, no syncope, no vomiting, sweating or pain in the abdomen. Besides the unavoidable delay in making the physical diagnosis there was difficulty in securing consent for the operation, and hence the loss of valuable time. The patient died three hours after the operation with purulent peritonitis.

2. **Intraneural Injections of Cocain.**—Gibbon reports a case of painless amputation with good results under anesthesia pro-

duced by giving 1/4 gr. of morphin and 1/150 gr. of atropin hypodermically 15 minutes before the operation, and then exposing the sciatic and anterior crural nerves under infiltration anesthesia with Schleich's fluid and injecting them with a 1 per cent. cocain solution. The patient felt no pain and did not know that his foot had been amputated until the operation was finished. There was no evidence of shock, excepting a slightly increased pulse rate. Gibbon gives it as his belief that this method of producing anesthesia should be limited at this time to cases in which general anesthesia is contraindicated, but it certainly seems to him to have a wide field in the future practice of surgery.

3. **Pessaries.**—Gallant describes the conditions helped by the use of pessaries and the methods of their employment. He suggests the following precautions:

When the pessary is in position (*a*) the vaginal wall should never be tense; (*b*) the lower bar must lie just behind the symphysis, invisible at the vulva; (*c*) it should be somewhat movable up and down and free from discomfort during coitus; (*d*) the wearer should not at any time feel conscious of its presence; (*e*) it must be removed at the end of the first week and the vagina examined for pressure points or any signs of irritation; it should then be replaced, and again removed at least once every four weeks, cleaned, polished with a dry towel, and reinserted; (*f*) the wearer must use daily a warm douche, to which may be added a tablespoonful of common salt, or two teaspoonfuls of sodium bicarbonate. These vaginal douches are of service only for cleansing purposes. Vaginal douches for the reduction of pelvic inflammation are injurious if not continued for at least 20 minutes, whereas rectal injections or continuous irrigations for an hour, once or twice daily, will exert an almost marvelous effect on recent pelvic inflammation, and in alleviating pain and tenderness, and for removing exudates in the old cases. For rectal injections he uses 2 quarts of water at 120 deg. F., to which have been added 2 ozs. hamamelis; the patient lying on her right side, her hips raised as high as possible and the legs flexed on the abdomen; allow the mixture to run in slowly, a few ounces at a time; encourage her to retain it as long as possible and lie still for an hour. In many instances the whole two quarts will be retained and will do her good. For continuous irrigation Kemp's tube has afforded the most satisfactory results.

No absolute cure of uterine displacements should be promised, but only symptomatic relief, and pessaries ought never to be used when there is present purulent vaginitis or fixation of the uterus, ovaries or tubes, pus tubes or pelvic enlargements.

4. **Hernia in Young Children.**—Cumston reports operations in children under two years old presenting different clinical phases, in two of them strangulation had taken place; one had a double hernia. All the children, with one exception, were in good physical condition and stood the operation well. No hard and fixed rules, he says, can be laid down as to the indications for radical cure. The most important one is strangulation. He does not believe in taxis in such cases. The Bassini operation has always been satisfactorily performed within one-half hour or less in his experience. He formulates the following conclusions:

1. Experience has demonstrated the innocuity of radical operation for hernia in infants. 2. The operation is indicated in all cases of strangulation, in all cases in which the contents of the sac can not be retained by a truss, and in every case in which irritation of the skin is produced by the mechanical appliance, and in children of the poor who can not receive the necessary and proper attention at their homes.

5. **Paradoxical Pupillary Accommodation Reaction.**—Three cases of this peculiarity are noticed by Spiller, in one of which there was unquestionably organic disease, though Piltz has said that it occurs only in functional disorders. The condition as understood is not the same as the better-known paradoxical reaction to light where the pupil becomes dilated under light stimulation. The condition here considered occurs only after accommodation.

6. **Brain Weights.**—Spitzka has collected 114 cases of brain weights of prominent individuals, of which 96 were suitable for analysis. He leaves out any mythical or complicated cases, and those to which valid objections could be made, and remarks in regard to the conditions as indicating atrophy or change from the actual condition during life. He finds there is a relatively greater number of heavy brains among noted individuals, as shown by the diagram he gives, and the average brain weights were higher in the United States and Canada than in Europe, in the individuals analyzed. The cases are tabulated according to the occupations, which show that the exact sciences, such as mathematics and astronomy, furnished men of heaviest brains, and next come the men of action, statesmen, politicians and military men. The creative arts come next, including among others three opera composers. The average of 45 representatives of the natural sciences is lowest of all, but still above the average of ordinary brain weights. While every rule has its exceptions, the inference that the intellectual status is in some way reflected in the mass and weight of the brain seems generally correct, but men devoted to higher intellectual occupations involving the most complex mental mechanism, those of men who have devised original lines of research and those of forceful characters are generally the heaviest.

Medical News, New York.

May 2.

8 *Indications for Extirpation of the Gall Bladder. Maurice H. Richardson.
9 *Some Practical Points in the Anatomy of the Gall Bladder Region. George E. Brewer.
10 *The Diagnosis of Gallstones. J. B. Murphy.
11 *The Mortality in Appendicitis; Its Cause and Limitation. A. J. Ochsner.
12 *Prompt Operation in the Beginning of the Attack Will Save Nearly All Cases of Appendicitis. A. C. Bernays.

8. **Cholecystectomy.**—Richardson is not an advocate of routine cholecystectomy, but points out its advantages in immediate healing and consequent lesser liability to hernia, the absence of any possibility of gallstones forming in the bladder or of a subsequent cholecystitis or malignant growths, and the minimum possibility of adhesions. On the other hand, there is no possibility of draining the biliary passages except through one of the ducts and that only after a difficult and usually unsatisfactory operation. In this lies the chief objection to cholecystectomy, for enforced and persistent drainage is one of the chief factors in bringing about the brilliant and permanent results seen after cholecystotomy. In most biliary affections, drainage is not only an advantage but an absolute necessity, and in removal of the gall bladder we dispense with an essential feature of the majority of cases of biliary surgery. There is also a greater danger in the operation. He sums up his conclusions as follows:

1. Certain lesions in themselves demand removal of the gall bladder whenever possible. Such are new growths and gangrenes.
2. Certain other lesions of the gall bladder are better treated by cholecystectomy. These are the contracted and inflamed gall bladders, with thickened walls. All gall bladders which do not permit easy and efficient drainage should be extirpated, for in such gall bladders the risks of drainage are quite as great as the risks of extirpation; and the one great advantage of retention is impossible—retention of the biliary reservoir to fulfill the functions of that reservoir, and to permit, if necessary, renewed drainage in future years.
3. Drainage is preferable in the dilated and infected gall bladder, which, however, is neither gangrenous nor to any great extent changed—the slightly thickened gall bladder containing gallstones and infected bile. This gall bladder will, after drainage, become normal, and therefore capable of fulfilling the functions of a gall bladder. Through it the biliary passages will become effectually drained, after subsidence of the temporary swelling about the cystic duct.
4. As a rule drainage rather than extirpation is demanded in acute cholecystitis with severe constitutional symptoms, when the gall bladder is dilated, or at least not contracted, and when it is not gangrenous.
5. In chronic cholecystitis, with dilatation and thickening of the gall bladder, especially when a stone is impacted in the cystic duct, extirpation is the preferable operation, unless the stone can be dislodged backward into the gall bladder, in which case drainage is, if not preferable, quite as advantageous as extirpation.
6. In simple gallstones, without visible evidence of infection or chronic changes incompatible with complete restoration of function, simple drainage of the gall bladder is indicated.
7. In chronic pancreatitis, whether associated with gallstones or not, drainage through the gall bladder is indicated. Cholecystectomy is unjustifiable, for immediate drainage is essential. Furthermore, reopening of the biliary passages may in the future be required.

9. **The Gall-Bladder Region.**—Brewer describes the anatomy of the bladder, its anomalies such as its absence, duplex gall bladder, variations in the ducts, etc.

10. **The Diagnosis of Gallstones.**—Murphy analyzes the various symptoms of gallstones, the pain, colic and their causes, vomiting, hypersensitiveness in the region, temperature, etc. In the relation of jaundice to pain, he formulates the following: 1. That jaundice due to gallstones is always preceded by colic; 2, that jaundice due to malignant disease, or catarrh of the ducts accompanied by infection, is never preceded by colic. The different classes of cases of gall-bladder infection are noticed, such as that characterized by pain,

vomiting, the types with characteristic recurrent chills, temperature, etc. The symptoms of stone in the common ducts and in the other ducts are all noted in detail.

11. **Appendicitis.**—Ochsner reiterates his views in regard to the management of appendicitis and the cause of its mortality, illustrating them by cases from practice. He considers that the mortality depends on the extension of the infection to the peritoneum and by metastatic infection, which can be prevented by removal of the appendix, while the infection is still confined to it. The distribution or extension of the infection is accomplished by the peristaltic action of the small intestines and also by operation after infectious material has extended beyond the appendix and before it has become circumscribed. He would fight peristalsis of the small intestine by prohibiting the use of every form of nourishment and cathartics by the mouth, using gastric lavage in order to remove any food or mucus from the stomach, and nourishing the patient for the necessary period of time by nutrient enemata. In this way dangerous cases of acute appendicitis can be changed into relatively harmless cases of chronic appendicitis, and the mortality following operations for the latter is exceedingly low. He offers the following suggestions:

1. Patients suffering from chronic recurrent appendicitis should be operated on during the interval.
2. Patients suffering from acute appendicitis should be operated on as soon as the diagnosis is made, provided they come under treatment while the infectious material is still confined to the appendix, if a competent surgeon is available.
3. Aside from insuring a low mortality this will prevent a series of complications, mentioned elsewhere in his paper.
4. In all cases of acute appendicitis without regard to the treatment contemplated, the administration of food and cathartics by mouth should be absolutely prohibited.
5. In case of nausea or vomiting or gaseous distention of the abdomen, gastric lavage should be employed.
6. In cases coming under treatment after the infection has extended beyond the tissues of the appendix, especially in the presence of beginning diffuse peritonitis, conclusions 4 and 5 should always be employed until the patient's condition makes operative interference safe.
7. In case no operation is performed, neither nourishment nor cathartics should be given by mouth until the patient has been free from pain and otherwise normal for at least four days.
8. During the beginning of this treatment not even water should be given by mouth, the thirst being quenched by rinsing the mouth with cold water and by the use of small enemata. Later small sips of very hot water frequently repeated may be given and still later small sips of cold water. There is danger in giving water too freely.
9. All practitioners of medicine and surgery, as well as the general public, should be impressed with the importance of prohibiting the use of cathartics and food by mouth in cases suffering from acute appendicitis.
10. It should be constantly borne in mind that even the slightest amount of liquid food of any kind given by mouth may give rise to dangerous peristalsis.
11. The most convenient form of rectal feeding consists in the use of one ounce of one of the various concentrated liquid predigested foods in the market, dissolved in three ounces of warm normal salt solution, introduced slowly through a soft catheter, inserted into the rectum a distance of two to three inches.
12. This form of treatment can not supplant the operative treatment of acute appendicitis, but it can and should be used to reduce the mortality by changing the class of cases in which the mortality is greatest into another class in which the mortality is very small after operation.

12. **Appendicitis.**—Bernays pleads for early operation. The absence of a tumor is a more pressing indication for immediate surgical interference than its presence. Whenever an operation for appendicitis is performed within twenty-four hours after the attack, it is successful in about 98 per cent. of all cases thus treated. He does not like these to be called early operations; they are only operations done at the proper time. The mortality of interval operations is also very low. He has had no deaths in over 400 cases, and as regards any special dangers in early operations, aside from the greater danger of the anesthetic in a few cases, he would say there are none. Operations done during the first day or two are easier and more complete than later operations. The whole answer to the question as to when to operate, is that we must operate early in the attack.

Boston Medical and Surgical Journal.

April 30.

13 **Address to the Nurses Graduating from the Framingham Hospital in 1902.** Arthur T. Cabot.
14 *Albumosuria. Chauncey R. Burr.
15 **A Case of Juvenile Aortic Stenosis, with Subsequent Insufficiency, Sudden Death: Autopsy.** Albert N. Blodgett.
16 **Mountain Sanatoria for Tuberculosis.** Walter Lindley.

14. **Albumosuria.**—Burr described albumosuria and the conditions in which it occurs and insists on the importance of the fact that, aside from lesions of the digestive tract, albumosuria is indicative of leucocytosis and peptonuria of pus absorption. He describes the tests, the only sure one being the saturation of urine at the boiling point with neutral ammonium sulphate; filter and wash the precipitate with saturated solution of ammonium sulphate. Dissolve the precipitate in water or dilute sodium chlorid solution and apply the biuret test. If albumoses are present a rose color results. The treatment is based on the indications mentioned above.

Medical Record, New York.

May 2.

17 *Cranial Form in Man, Together with Some Remarks on the Attitude of the Profession Toward Anthropology. Arthur Thomson.
18 *Reciprocity in Pathology. S. B. Laache.
19 *Antituberculous Campaign in Latin America. Emile R. Coni.
20 *The Expansion of a Specialty. Howard A. Kelly.

17. **Cranial Form in Man.**—The agencies operative in modifying the cranial form are stated by Thomson under two heads: 1. Those operative from within; 2, those operative from without. Considering all the facts, the increased size of the temporal muscle coincides with a greater development of the jaws and he finds a correlation between the coronoid index and the cephalic index, the higher coronoid index being usually associated with dolichocephaly while the lower coronoid indices are met with in skulls of the brachycephalic type. This, however, is from a comparatively small number of observations, and further study is required. Prolonged stress in the region of the pterion, by enlarged temporal muscles, has its effect on the contour of the cranium. Passing on to the consideration of the causes operating from within, he notices the work of Papillault, who has shown that the occurrence of the metopic suture is more common among races with large cranial capacity, and is due to a superiority in the bulk and relative weight of the cerebrum. He also refers to the observations of Boas, who has established that the height of the skull seems most closely associated with capacity, the length least so. To determine the effect of pressure from within, Thomson contrived an apparatus consisting of a rubber bladder fastened over the base of the skull with cords cemented to it representing the temporal muscles, to which could be attached weights. The varying degrees of the distension of the bladder illustrate the different types of the skull. His main point has been to prove that the shape of man's head in its highest development is the outcome of physical and intellectual environment which have led, on the one hand, to a reduction in the size of the jaws and on the other to increased volume of the brain.

18. **Pathologic Reciprocity.**—Laache's article is a consideration of the relations existing from a clinical point of view between the different organs and systems of organs.

19. **The Antituberculous Campaign in Latin America.**—Coni gives the history of the efforts made against tuberculosis in the Spanish and Portugese-speaking regions of the western continent.

20. **The Evolution of the Specialty.**—Kelly's article is an endeavor to show that while there exists a historical continuity in the use of the term gynecology, modern practice differs *toto coelo* from that of former times. The change is not a natural evolution, but an absolute transformation from a minor specialty to a general specialty of major surgery. The term gynecology, he thinks, is a misnomer to-day.

American Medicine, Philadelphia.

May 2.

21 *The Treatment of the Acute Diarrheas of Infancy. John L. Morse.
22 *Some Points Pertaining to the Therapeutic Management of the Uremic State. Heinrich Stern.
23 **A Clinical and Statistical Review of 122 Cases of Albuminuria and 48 Cases of Eclampsia Occurring in the Maternity of the Hospital of the University of Pennsylvania.** John C. Hirst.
24 *Syphilitic Toxemia Hemiplegia. Charles W. Burr.
25 **An Interesting Complication in the Diagnosis of Gallstone.** Guy L. Hunner.

26 *Peritonitis in Typhoid Fever without Perforation, with a Report of One Case Caused by the Bacillus Typhosus and Another Simulating Acute Appendicitis. J. L. Yates.
27 The Society for Experimental Biology and Medicine. William J. Gies.

21. **Infantile Diarrheas.**—Morse describes the different types of bowel trouble in infants, the simple diarrheal, which is usually relieved by early removal of the cause, the infective diarrheas due to micro-organisms, to which he gives the name fermental diarrhea, ileocolitis and cholera infantum. In the fermental form the best treatment after purgation to remove the cause is to cut off all food for twenty-four hours, giving only sterile water and later employing a proteid diet with almost complete exclusion of sugar in cases of sour stools. In others, following the general principles and using milk preparations as soon as the stomach will bear them, but previously employing various substitutes which, he thinks, however, are largely effective through their weakness in nutritive material and consequent lack of taxing of the digestive organs. When beginning to use milk preparations, whey is often most useful, made either from whole or skimmed milk. It is prepared by adding a teaspoonful of essence of pepsin or a junket tablet to a pint of milk and heating to from 100 to 110 F. until it coagulates. Then strain through a napkin. A little cream may be added if the patient is doing well, heating first the whey to 150 F. to avoid curdling the cream. If whey is not used the infant should be given a modified milk prepared from fresh milk low in all percentages, highly alkaline and pasteurized. Breast feeding should not be forgotten. In many cases it will result in cure. For drugs he uses bismuth, preferring the ammoniocitrate. The special symptoms due to toxic absorption may require treatment; vomiting may be relieved by stomach washing, hyperpyrexia by cold bathing and the bromids be used for restlessness, and morphin if necessary; stimulants in cases of prostration and collapse, for which brandy and strychnin are most useful. The toxic symptoms are sometimes much relieved by subcutaneous injections of normal salt solution, which can be also given as an enema, though it is not likely to be retained. Ileocolitis, which has more serious pathologic lesions, must be treated along the same lines, but it is possible in this case to reach the seat of the disease from below and irrigation comes into play. Normal salt solution or 1 to 2 per cent. strength of boric acid are most useful. In some chronic cases weak irrigations of silver nitrate in the proportion of 1 to 1,000, one in two or three days, seem to hasten recovery. A strong salt solution should always be at hand when this is used in case its proves too irritating. In cholera infantum the main indications are to empty the stomach and bowels of their toxic contents, supply food to the tissues which are being seriously drained, restore surface circulation and reduce the temperature and keep the patient alive until the disease has run its course. He depends mainly on stomach washing and intestinal irrigations used early and vigorously, and stimulants given subcutaneously.

22. **The Uremic State.**—Stern calls particular attention to the retention nitrogen, that remaining in the blood after complete removal of albuminous substances, as having an important causative relationship to uremia. He considers the promotion of perspiration a very important measure in almost every case, though it is of little value after a pronounced comatose condition has supervened or the attack has persisted for a long time. Enteroclysis should also be performed with weak chlorid solution, or hypodermoclysis with a hypotonic solution of NaCl should be performed at certain intervals. In many cases venesection is of use, though it is bad in advanced asthenic conditions. Much stress is laid on the use of hypodermoclysis and infusion. An isotonic chlorid solution containing 0.9 per cent. of sodium chlorid is not quite as efficient in uremia as one which is slightly weaker, 0.6 per cent. The minimum amount used should never be less than 125 c.c. injected intravenously and 250 c.c. when administered by hypodermoclysis. It should be used slightly above the normal blood heat. When, after the employment of chloroform, vasoconstriction and convulsive phenomena do not diminish, a small dose of morphin may be resorted to and help to bridge over a critical period. It is not indicated, however, in uremia of chronic interstitial nephritis, which rarely shows convulsive phenomena, but is comagenous itself, and here it might hasten the fatal issue.

24. **Syphilitic Toxemic Hemiplegia.**—Burr describes the case of a young woman who, in recovering from a spree, suffered from a headache, became queer and dazed, and the next day fell unconscious and convulsed, the convulsive movements lasting many hours, the unconsciousness several days. During this time a slowly oncoming hemiplegia preceded by dilatation of the left pupil developed, and later there were changes in the reflexes and left-sided ptosis. Consciousness slowly returned and later hemiplegia and other symptoms, barring a slight pupillary disturbance, passed away. A study of the case excluded other causes such as hemorrhage, blood poisoning, etc., and the diagnosis of a syphilitic origin was made by exclusion. The only positive evidence of syphilis was the patient's endurance of the specific treatment, and the character of the symptoms.

26. **Peritonitis Without Perforation in Typhoid.**—The following are the conclusions offered by Yates after a discussion of the condition and detailed reports of cases:

1. Non-perforative peritonitis usually results from an extension of inflammation through the bases of deep intestinal ulcers, but may also arise from the migration of bacteria through an intestinal wall which is relatively but slightly abnormal.
2. Meteorism thus predisposes to infection of the peritoneal cavity and by decreasing the normal peritoneal absorption furnishes a secondary cause for peritonitis.
3. An hematogenous origin of peritonitis is possible in typhoid fever.
4. Non-perforative peritonitis is commonly caused by the typhoid bacillus and the resulting inflammation is usually diffuse and often severe.
5. The inception of such a peritonitis is clinically indistinguishable from the so-called signs of perforation, and the symptoms in both are due to peritoneal inflammation. The prognosis is probably equally grave in the two forms.
6. There should be appropriate surgical intervention immediately the peritonitis can be recognized. Enterostomy is indicated when there is meteorism with the peritonitis or when it affects the prognosis and is intractable to ordinary therapeutics.
7. Thrombi, and among them those composed of agglutinated red blood-corpuscles, may lead to hemorrhages into the wall of the intestine and the resulting changes favor the transmigration of bacteria into the peritoneal cavity.
8. Infarction of the spleen may have a similar thrombotic causation, but simple splenic infarction is probably not a cause of peritonitis.
9. The specific action on human blood of an agglutinin generated by the typhoid bacillus can be demonstrated *in vitro*.

New York Medical Journal.

May 2.

28 *The Tendo Achillis Shortened for the Restoration of the Function of the Calf, Lost as a Result of a Previous Tenotomy. Russell A. Hibbs.
29 A Case of Nevus of the Scalp and Nose Treated by Hot Water Injections. Frederic Griffith.
30 *The Treatment of Gastric and Duodenal Hemorrhages. Max Einhorn.
31 *The Uses of Suprarenal Extract in Nose and Throat Diseases. Beaman Douglass.
32 *The Operative Treatment of Stenosis of the Larynx Following Intubation and Tracheotomy. Report and Exhibition of Cases. Arthur B. Duel.
33 An Anastomosis Ring. William L. Keller.
34 Suprascrotal Operation for Varicocele, with Ligature of the Spermatic Artery. E. Styles Potter.

28. **Shortening of the Tendo Achillis.**—Hibbs reports several cases in which shortening of the tendon was performed on account of an earlier tenotomy and the loss of power of the calf muscles. The operation for shortening revealed dissimilarity in every particular of the structure filling the gap between the ends of the old tendon to normal tendon structure, which he thinks points out that subcutaneous division of the tendo Achillis is not always so successful as it has been considered; that while in some cases the reproduced structure seems to be sufficiently strong to perform the function of tendon, in others this is not so, and one can not be sure in any case what will be the result. There must be some conditions necessary for complete success and these are, he thinks: 1, the preservation of the sheath, and 2, the preservation of the continuity of the tendon. These can not be secured except by open operation.

30. **Gastric and Duodenal Hemorrhages.**—Einhorn discusses the treatment by rest in bed, abstinence from food, use of ice,

etc., as rational methods. He has had good results from the subcutaneous use of gelatin and would recommend it. Adrenalin is also of value, and he has experimented on rabbits to show its effects, which indicate a distinct value of the local application of the drug on the bleeding area. He has used it, injecting a solution of adrenalin chlorid, 1 to 2,000 subcutaneously twice daily in 2 cases of gastric hemorrhages, with apparently good results, and has also tried spraying the stomach with a 1 to 5,000 solution. Further clinical tests will be required. Heart stimulants must be employed in most cases of gastric and duodenal hemorrhage besides the other measures of avoidance of exertion, rational feeding, and using iron, arsenic, and bone marrow with the tentative use of gelatin and adrenalin. The indications for surgical intervention, excision or cautery of bleeding area or gastroenterostomy, are very profuse hemorrhages at short intervals; profuse gastric and duodenal hemorrhages occurring once or twice yearly and greatly endangering the life of the patient. These require the interval or prophylactic operation. Frequent small hemorrhages of the stomach or duodenum, which greatly debilitate the patient and can not be stopped by rational therapeutics, often demand operative measures and here gastroenterostomy is usually advisable.

31. **Suprarenal Extract.**—The uses of this drug are reviewed by Douglass, who finds it specially valuable in diminishing bleeding and hemorrhages during nasal operations. It has its limitations and possible drawbacks, and he has not seen much good from it in operations on the adenoid tissues. In hemorrhage after tonsillotomy, hydrogen peroxid seems to him to work better. The suprarenal has also its value in diagnosis, in differentiating congested from hypertrophied tissues. In acute inflammatory conditions of the nose, pharynx and larynx, it is one of the best remedies.

32. **Stenosis of the Larynx.**—Three cases are reported by Duel to emphasize the points made by Rogers in his paper in the "Annals of Surgery" for May, 1900, on the retained intubation tube. The principal points to remember are that about 1 per cent. of all patients intubated for acute laryngeal stenosis will "retain" the tube. This is due in most cases to chronic inflammation of the intralaryngeal mucosa and subglottic tissues, and is not the result of granulation or cicatricial bands, etc. Auto-extubation in these cases is the rule and greatly adds to the danger, and as a result of this tracheotomy is often performed for safety. Where high tracheotomies are done, cicatricial bands are almost certain to form in the trachea or lower part of the larynx above the tracheotomy wounds. The points in the treatment to be emphasized are the use of the largest possible sized tube under anesthesia. In case of contraction, rapid dilatation should be done by beginning with the small sizes and working up to the large special tube, which is to be left in place. This tube should be left in for at least six weeks and then removed, and in failure of recovery it should be replaced for six weeks longer. He is in favor of splitting the larynx and holding the tube in place by means of the retaining clamp early in such cases, rather than resorting to tracheotomy, which adds cicatricial bands to the already existing complications.

Cincinnati Lancet-Clinic.

May 2.

35 The Urinary Secretion: Its Obstetrical and Gynecological Considerations. Chauncey D. Palmer.
36 The Psychological Factor in Medicine and Its Application to Nervous Disease. John Punton.
37 Surgery of the Prostate, Pancreas, Diaphragm and Spleen. (Continued.) B. Merrill Ricketts.

St. Louis Medical Review.

April 25.

38 Fatal Hemorrhage from Conjunctiva in the New-Born; with Report of Case. Meyer Wiener.
39 Prophylactic Treatment of the Eyes in the New-Born. Hugo Ehrenfest.
40 The Treatment of Ophthalmia Neonatorum. John Green, Jr.

Northwestern Lancet, Minneapolis.

May 1.

41 *The *X*-rays in Medical Diagnosis. Soren P. Rees.
42 So-called Chronic Catarrhal Endometritis. A. W. Abbott.

41. **X-Rays in Medical Diagnosis.**—Rees finds a decided value in the *x*-rays aside from their surgical use, not merely in the treatment of cancer, hypertrichosis, etc., but in medical diagnosis. The chest appearances are specially noted and the possibilities of determining tuberculous lesions, pneumonia, emphysema, pleurisy, where doubt exists, are pointed out. Any abnormality in size, shape, position or movement of the heart is readily discovered when the lung casts a normal or lighter shadow. A comparison between the outlines obtained by percussion and those by the fluoroscope shows what a material aid the latter is in determining the size of the heart. It has been shown that the apparent enlargement of the heart in cases of chlorosis is in many cases merely a change in the long axis of the heart from the vertical to the more oblique. Pericardial effusion, adhesions and displacements are apparent with a certainty that is otherwise impossible. In thorax aneurism and in the early stages of many aneurisms, when the prognosis would be most favorable if the condition could be ascertained, the *x*-rays come into special use, and deeply seated, enlarged glands, tumors, etc., are also detected. By means of a metallic sound or soft rubber tube filled with mercury or shot after its insertion, a diverticulum or stricture of the esophagus is demonstrated. The abdominal and pelvic organs do not show the same differences in density as in the thorax, and the ray is less satisfactory. Using certain precautions such as a brisk purge, freedom of the stomach from food, doing away with clothing, etc., much can be done, however, in determining conditions below the diaphragm. The importance of having a skilled physician to interpret the appearances is emphasized. Cases of calculus of the gall bladder, kidney and uterus, especially show the uses of the *x*-ray. Rees finishes with the following conclusions:

1. That the *x*-ray is a very valuable aid in the diagnosis of many medical diseases, and of primary importance in the diagnosis of several. 2. That for the internist, at least, who confines his work largely to chronic ailments, it becomes especially valuable, and that it is entirely feasible for him to make office examinations of suitable cases. 3. That the rapid improvement in apparatus and technic and the need of careful training on the part of the observer, will prevent for some time its successful employment by the ordinary practitioner. 4. That while we must admit an idiosyncrasy to the *x*-ray in some persons, the danger of burn to the operator and to the patient, if proper precautions are taken, is very small.

Journal of Tuberculosis, Asheville, N. C.

April.

43 *Pulmonary Tuberculosis. Aufrecht (Magdeburg).
44 *The Mode of Infection in Tuberculosis and Measures for Its Prevention. F. M. Pottenger.
45 Origin and Growth of Sanatoria for Tuberculosis in Massachusetts. Vincent Y. Bowditch.
46 *Auxiliaries in the Treatment of Consumptives. Otto Juettner.
47 Report of 309 Cases of Pulmonary Tuberculosis, with Remarks on Classification and Treatment Employed. Karl von Ruck.

43. **Pulmonary Tuberculosis.**—Aufrecht combats the ordinary idea of infection by inhalation and the dangers of the contagiousness of the disease. The method of its entrance into the system he holds is ordinarily through the tonsils and from these to the lymphatics and thence through the vessels to the lung tissue. There may be a formation of cheesy foci in the apex due to entrance of the bacilli into the smaller branches of the pulmonary artery as in ordinary chronic tuberculosis. In what he calls subacute pulmonary tuberculosis very numerous cheesy tubercles may occur throughout the whole lung tissue, caused by sudden invasion by hordes of bacilli through the pulmonary artery. Recovery in this form is still possible. Lastly, the pulmonary tuberculosis may be only a partial phenomenon of an acute general miliary tuberculosis traceable to overwhelming of the whole body by tubercle bacilli through the systemic circulation.

44. **Mode of Infection of Tuberculosis.**—Pottenger's views are much like those of Aufrecht as regards the mode of infection. He thinks that, in a very large proportion of the cases, the bacilli are taken into the body by the mucous membranes of the upper respiratory and digestive tracts. When once through the mucous membrane they find themselves in the lymph spaces, whence they are carried and deposited in the neighboring or some remote lymph gland, or find their way

through the thoracic duct into the pulmonary circulation, to be strained out by the small vessels of the lungs. He insists on the importance of precautionary measures against tuberculosis infection.

46. **The Treatment of Tuberculosis.**—Juettner discusses the methods of massage and chest gymnastics, oxygen and ozone inhalation, the use of high frequency currents, photo- and Roentgen-ray therapy and hydrotherapy.

Pediatrics, New York.

April.

48 *A Contribution to the Natural History of Diphtheria. H. Illoway.

48. **Diphtheria.**—Two cases are reported by Illoway. He offers certain conclusions, affirming that diphtheria is a self-limited disease and when placed under proper conditions tends to recover. Even grave dyspnea does not necessarily indicate a fatal issue; nature may work out its own salvation. Diphtheria following on measles is a grave affection, and all such cases in his experience as were tracheotomied or intubated, died. He concludes with the report of a case of tonsillar diphtheria which he finds has also the same natural tendency to recovery, though it may produce very marked constitutional disturbance with but trifling local manifestations. The case also points out the advantages of digitalis as a cardiac regulator and a controller of temperature.

Pennsylvania Medical Journal, Pittsburg.

March.

49 Address in Obstetrics, Medical Society of the State of Pennsylvania. J. M. Baldy.
50 *A Further Report on the Treatment of Tic Douloureux by Division of the Sensory Root of the Gasserian Ganglion. Charles H. Frazier.

April.

51 *Unilateral Renal Hematuria. Augustus A. Eshner.
52 The Rôle of the Cystoscope in the Diagnosis and Treatment of Some Diseases of the Urinary Tract. Charles P. Noble.
53 *Fistula between Gall Bladder and Stomach. A. Barr Snively.

50. **Tic Douloureux.**—Frazier offers a further report on the advantages of section of the sensory branch of the fifth nerve in place of extirpation of the gasserian ganglion in obstinate cases of neuralgia. He enumerates among the advantages claimed for division of the sensory root that it obviates a number of difficulties, especially hemorrhage, which is the greatest bugbear in gasserian extirpation. It usually occurs from three sources: 1. From the middle meningeal artery. 2. From the emissary veins. 3. From the cavernous sinus. As regards hemorrhage from the middle meningeal, the two operations are on a par, but as regards the other two sources of hemorrhage, section of the sensory root avoids hemorrhage, and the chances of injuring the adjacent structures are also very much lessened and there is a decided reduction in the rate of mortality.

51. **Unilateral Renal Hematuria.**—Eshner reports a case presenting symptoms of renal calculus with hematuria in which, after exposure of the kidney, nothing abnormal was found, but the symptoms disappeared permanently. He discusses the literature at length and gives a summary of the reported case, together with an analysis. He concludes that there occurs occasionally, in men and women alike, mostly at middle adult life, hemorrhage from a single kidney, from either with equal frequency, in many cases from demonstrable organic disorder and in others of obscure or unknown origin. This hematuria may cease after simple exposure of the kidney, or after nephropexy or nephrotomy or, in the failure of these, after nephrectomy.

53.—This article appeared in THE JOURNAL of April 11, p. 963.

Ophthalmic Record, Chicago.

April.

54 Confessions of a Traveler. (Continued.) Albert B. Hale.
55 Mucocele of the Left Inferior Lachrymal Canaliculus. George T. Brady.
56 *Glaucoma Malignum—Report of a Case with Recovery of Vision. H. E. Peterman.
57 *Amblyopia with Slow Recovery of Vision After Extraction of Very Old Cataracts. H. Moulton.
58 *A New Method of Preventing Infection from the Conjunctiva After Operations Involving Opening the Anterior Chamber. E. C. Ellett.
59 A Tumor of the Dura Mater Covered by the Cerebellum. Located in the Posterior Fossa of the Skull; Some of the Symptoms Resulting Therefrom. William L. Bullard.

56. **Glaucoma.**—Peterman reports a case of malignant glaucoma which recovered. It was associated with astigmatism "against the rule" in both eyes, and the second eye became infected with glaucoma two years and three months after the first. Iridectomy was performed and malignant glaucoma did not occur. In conclusion he remarks on the effects of the salicylates in these cases.

57. **Amblyopia with Slow Recovery After Cataract Operation.**—Moulton reports two cases of amblyopia from disuse. The patients were operated on for cataract, but sight return was very gradual in spite of perfectly clear media and healthy fundus. Several months were required for perfect restoration.

58. **Prevention of Conjunctival Infection.**—In order to prevent infection of the corneal wound from the lachrymal passages, Ellett operated by incising the conjunctiva all around the cornea as in case of enucleation, then dissecting it up from the ball by means of a probe, care being taken to free it well in the upward and downward directions to a distance of about half an inch from the limbus. The cataract was extracted by the combined operation and the cut edges of the conjunctiva then picked up and drawn upward and downward until they met over the cornea and were united by a horizontal row of stitches so as to completely cover it. No apparent gap was left and iodoform was thickly dusted over the line of union and the eye covered with a light gauze dressing. The eye was irrigated every hour with boric solution and iodoform reapplied. After the fourth day, when the ball seemed to have regained its natural contour, the stitches were removed and the conjunctival edges spontaneously separated and the corneal wound was seen to have closed. The whole cornea was exposed about three days after the removal of the stitches, the conjunctiva attaching itself again in its normal position.

Illinois Medical Journal, Springfield.

May.

60 *The Diagnosis of Chronic Interstitial Nephritis Based upon Physical Signs, Chiefly Cardio-Vascular. Charles L. Mix.
61 *Malarial Hematuria with Etiology, Symptoms, Diagnosis and Treatment. M. L. Winstead.
62 The Technic and Possibilities of Endovesical Operative Procedures. Louis E. Schmidt.
63 The Adolescent Girl. Rhoda G. Yolton.
64 Hydro- and Electro-Therapy in the Treatment of Diseases of the Alimentary Tract. E. M. Eckard.
65 *Concerning a New Series of Synthetic Salts; the Nucleids of Iron, Copper, Mercury and Silver. E. R. Larned.
66 *System in Medical Practice. Carl E. Black.
67 *Surgery of the Prostate. John B. Murphy.

60.—This article has appeared elsewhere. See THE JOURNAL of April 4, title 48, p. 937.

61. **Malarial Hematuria.**—Winstead holds that malarial hematuria is a toxemia due to retained poisons within the circulation which quinin has no power to eliminate. The malarial parasite is not its direct cause. Elimination of these toxins by the bowels and the kidneys is the first imperative duty in the treatment, afterwards fortifying the system against them by quinin and other tonics.

65. **The Nucleids.**—Larned reviews the literature of the nucleinic acid salts and offers the following deductions in conclusion:

1. These new salts of nucleinic acid are rational reconstructives; they are true tonics. They increase physiologic resistance; they increase the functional activity of the secretory organs. 2. They are powerful germicides, while not harmful but beneficial to the tissues. 3. If our present knowledge of nucleins and leucocytosis is correct, then the nucleid is the proper form for administration of metals. 4. We do not positively know the rationale of their action, but we have nothing which holds out such prospects for successful medication. 5. These new synthetic salts are valuable additions to the pharmacopeia.

66. **System in Medical Practice.**—Black's article is an elaborate description of a plan of keeping records and accounts according to the card system, following the Melville Dewey classification.

67. **Surgery of the Prostate.**—Murphy favors the perineal route in prostatectomy as less dangerous than the suprapubic

or Bottini operation; as less liable to cause hemorrhage, sepsis or injury to the neighboring structures, favoring drainage and rapid restoration, shortening period of wound repair, favoring retention of vesical control and relief of vesical irritation. The sexual power is destroyed. He reports a large number of cases, with numerous illustrations.

Medical Fortnightly, St. Louis.

April 25.

68 Some Reports of Cases of Fibroid Tumors of the Uterus. Josephine Milligan.
69 Surgery of the Pancreas (Historical and Experimental). Benjamin M. Ricketts.

Virginia Medical Semi-Monthly, Richmond.

April 24.

70 Cases in Practice, and Comments Thereon. R. S. Martin.
71 Two Cases of Clubfoot Associated with Maternal Impressions. Peyton B. Green.
72 Diphtheria. O. C. Kessler.
73 Case of Strangulated Femoral Hernia Operated on Under Morphin. W. H. Riddle.
74 Mouth Breathing. Clifton M. Miller.
75 Some Facts About a New Hypnotic—Hedonal. I. Julius Martinson.
76 Operation for Cataract, with Report of 65 Cases. E. Oliver Belt.

American Practitioner and News, Louisville, Ky.

February 1.

77 Management of Normal Cases of Labor. J. J. Adams.

Medical Age, Detroit, Mich.

April 25.

78 Conservative Treatment of Uterine Displacement. J. M. Inge.
79 The Lying-in Chamber. Minnie C. T. Love.
80 Suicide in Children. C. C. Mapes.

Richmond Journal of Practice.

March.

81 Mouth Breathing. Clifton M. Miller.
82 Chloroform as a Surgical Anesthetic and Its Administration. Manfred Call.

Canadian Journal of Medicine and Surgery, Toronto.

May.

83 Dr. James H. Richardson, One of Toronto's Grand Old Medical Men. W. A. Young.
84 Legislation Needed for the Preservation of the Teeth of the School Children of Canada. E. Herbert Adams.

International Journal of Surgery, New York.

May.

85 Report of 1,163 Surgical Cases Occurring During Two Months' Service at St. Vincent's Hospital, February and March, 1903. F. S. Dennis.
86 Some Observations on Acute Osteomyelitis. Howard Lilienthal.
87 Adenoids in the Rhinopharynx. Charles H. Knight.
88 Acute Inflammatory Atrophy of the Osseous Tissues. Carl Beck.
89 Operative Treatment of Retroversion of the Uterus. J. T. Field.
90 The Surgical Assistant. (Continued.) Walter M. Brickner.
91 The Value of Free Incisions in Abdominal Section. Leroy Broun.
92 Improvement of the Levis Carbolic Injections for Hydrocele. John A. Bodine.
93 Perineal Section for Removal of Calculus from Bladder; Abscess of the Kidney; Replantation of Teeth; Priapism. S. D. Van Meter.

American Medical Compend, Toledo, Ohio.

May.

94 On Corneal Opacities. George F. Suker.
95 Gastric Muscle Fatigue and Dilatation. Fenton B. Turck.
96 Uremia. E. W. Doherty.
97 Pyorrhea Alveolaris. J. N. Garfunkle.
98 Anesthetics and Anesthesia. W. W. Grube.

New Orleans Medical and Surgical Journal.

May.

99 The Art of Medicine—Some Ideals, Old and New. Isadore Dyer.
100 Notes on the Health Methods in New Orleans. Quitman Kohnke.
101 A Case of Xerosis-Icthyosis Type. Randell Hunt.

Medical Sentinel, Portland, Ore.

April.

102 The Practice of Medicine as a Career. C. J. Smith.
103 A Case of Intussusception without Obstruction. Ed. E. Maxey.
104 Aseptic Obstetrical Technic. George W. Libby.
105 Croupous or Lobar Pneumonia. J. F. Hall.
106 Pneumonia in Infancy. W. P. Gaines.
107 Treatment of Typhoid Fever. L. F. Griffith.

Medical Review of Reviews, New York.

April 25.

108 Preliminary Treatment in Minor Gynecological Surgery. William B. Small.

Texas Medical News, Austin.

April.

109 The Criminal Insane. G. H. Moody.
110 A New Instrument for the Radical Treatment of Chronic Hypertrophic Tonsillitis, with Remarks as to "Causalis Indicatus." E. L. Burton.
111 A Plea for More Accuracy in the Diagnosis of Lues in Its Initial Stage. Wm. F. Bernart.
112 An Operation for Cholecystotomy. W. W. Lynch.

Detroit Medical Journal.

April.

113 Diagnosis and Surgical Treatment of Tuberculosis of the Kidney. Ramon Guiteras.
114 Pus from the Upper Urinary Tract. Frederick W. Robbins.
115 Spontaneous Rupture of Skin Covering Umbilical Hernia—Gangrene of Intestine—Resection of Hernia—Recovery. William Bishop.

Therapeutic Gazette, Detroit, Mich.

April 15.

116 Carcinoma and Myoma Uteri; Removal of One Ovary and Part of the Second for Inflammation. E. E. Montgomery.
117 A Case of Bromoform Poisoning. Henry K. Dillard, Jr.
118 Medicinal Chemicals. Virgil Coblentz.
119 Jaesche-Arlt Operation for Organic Entropion or Trichiasis. A. S. U. Anderson.
120 Treatment of Prostatic Hypertrophy. (Concluded.) Edward Martin.
121 Gastric Lavage. Thomas H. Stucky.

Northwest Medicine, Seattle, Wash.

April.

122 Malignant Disease of the Common Bile Duct. William J. Mayo.
123 Acute Articular Rheumatism. H. M. Read.
124 The Medical Expert. F. M. Conn.
125 Report on Bubonic Plague in California. J. R. Booth.
126 Etiology of Ectopic Pregnancy. J. J. Panton.
127 Diagnosis of Ectopic Pregnancy. W. W. Skene.
128 Two Cases of Chewing Gum in the Bladder. J. B. Eagleson.
129 A Kidney in the Umbilical Cord. Geo. M. Horton.

International Medical Magazine, New York.

April.

130 The Causation of Hypertrophy and Dilatation of the Heart. A. O. J. Kelly.
131 Dilatation and Hypertrophy of the Heart from Physiologic Standpoint. William S. Wadsworth.
132 Diagnosis of Hypertrophy and Dilatation of the Heart. Samuel Wolfe.
133 The Place of Drugs in Cardiac Dilatation. Henry Beates, Jr.
134 The Selection of Cardiac Cases for, and Their Management at, High Altitudes. S. Edwin Solly.
135 Diet and Hygiene in Hypertrophy and Dilatation of the Heart. Henry L. Elsner.
136 The Mimicry of Cardiac Affections by Neurasthenia. Charles W. Burr.
137 The Treatment of Cardiac Hypertrophy and Dilatation. Roland G. Curtin.
138 The Rôle of Impaired Digestion and Faulty Metabolism in Overtaxing the Heart. Boardman Reed.

Louisville Monthly Journal of Medicine and Surgery.

May.

139 The Present Status of X-Ray Therapeutics. Thomas L. Butler.
140 Early Diagnosis of Cancer of the Stomach. Oscar E. Bloch.
141 Anent Urinalysis. Hugh R. Manning.
142 Some Injuries of the Knee-Joint. R. C. Falconer.
143 The Causal Relation of Defective Eyesight to Some Morbid Nervous Phenomena. A. P. Banfield.
144 Crime and Its Causes. H. L. Appleton.
145 Radical Treatment of Mastoiditis, with Report of Cases. Robert E. Moss.

Mississippi Medical Record, Vicksburg.

May.

146 Injury of the Eyeball; Report of Five Cases. M. H. Bell.

Canadian Practitioner and Review, Toronto.

April.

147 An Anomalous Case of Typhoid Fever. Robert J. Dwyer.
148 Report of Gynecological Clinic at the New York School of Clinical Medicine. Augustin H. Goelet.
149 Symptoms and Treatment of Calculus Anuria. E. L. Keyer, Jr.

Columbus Medical Journal.

April.

150 Tuberculosis and the Sanatorium. John H. Lowman.
151 Remarks Concerning the Diagnosis of Recently Acquired Syphilis. Starling S. Wilcox.
152 Tricuspid Regurgitation. William E. Allaman.

St. Paul Medical Journal.

May.

153 Concerning an Ideal City Water Supply. George W. Fuller.
154 Stone in the Bladder and Hypertrophy of the Prostate. Archibald MacLaren.
155 Tuberculosis, Its Prevention and Its Treatment Otherwise Than by the Use of Drugs. G. S. Wattam.
156 Hay Fever. J. H. James.
157 A Case of Idiopathic Anemia with Pronounced Involvement of the Nervous System. Charles R. Ball.

FOREIGN.

Titles marked with an asterisk (*) are abstracted below. Clinical lectures, single case reports and trials of new drugs and artificial foods are omitted unless of exceptional general interest.

British Medical Journal, London.

April 25.

1 *Importance of an Early Diagnosis of Cancer of the Stomach, with a View to Radical Treatment, with Remarks on Operative Results, Immediate and Remote. A. W. Mayo Robson.
2 *The Surgical Treatment of Gastric Ulcer. C. Mansell Moullin.
3 Case of Partial Gastrectomy, with Remarks on the Treatment of Malignant Disease of the Stomach. B. G. A. Moynihan.
4 Case of Chronic Pancreatitis, with an Account of the Post-mortem Examination. Gilbert Barling.
5 An Analysis of 110 Operations for Strangulated Hernia. William Thorburn.
6. Two Cases of Interstitial Nephritis in Congenital Syphilis. G. A. Sutherland and J. W. T. Walker.
7 *Knock-out Blows. James G. Duncanson.

1. **Gastric Cancer.**—The symptoms, diagnosis, physical examination and treatment of gastric cancer are reviewed by Robson, who gives illustrative cases. He says he trusts he has advanced sufficient evidence to prove:

1. How desirable it is to make an early diagnosis of cancer of the stomach in order that a radical operation may be performed at the earliest possible moment. 2. That it may be needful to perform an exploratory operation in order to complete or confirm the diagnosis. 3. That such an exploration may be done with little or no risk in the early stages of the disease. 4. That even where the disease is more advanced and a tumor perceptible, an exploratory operation is, as a rule, still advisable in order to carry out radical or palliative treatment. 5. That, where the disease is too extensive for any radical operation to be done, the palliative operation of gastroenterostomy, which can be done with very small risk, may considerably prolong life and make the remainder of it much more comfortable and happy. 6. That some cases, thought at the time to be cancer, too extensive for removal may, after gastroenterostomy, clear up completely and get quite well. 7. That in cases of disease of the cardiac end of the stomach too extensive for removal, the operation of gastrostomy may considerably prolong life and prove of great comfort to the patient by preventing death from starvation. 8. That even where the disease is too extensive either for removal or for gastroenterostomy being performed with a fair chance of success, the operation of jejunostomy may occasionally prove of service to the patient. 9. That where a radical operation can be performed the thorough removal of the disease may bring about as much relief to the patient as does the operation for removal of cancer in the breast, uterus and other organs of the body, and that in some cases a complete cure may follow.

2. **Gastric Ulcer.**—In 500 cases of gastric ulcer treated at the London Hospital in 1897 to 1902 there were nearly 10 per cent. of deaths from peritonitis, 13, or 2.5 per cent., from hematemesis, and 5.5 per cent. from other causes, or a total of about, approximately, 18 per cent. out of the 500 cases. No less than 211 had suffered previously, about two-fifths of the total. Counting the 18 per cent. of deaths and 42 per cent. of relapses, the ratio of cures in a surgical sense could hardly be considered a high one. Moullin points out that operation in these cases is not only feasible but sufficiently safe to justify its recommendation. He has operated on 15 cases, with 2 deaths, and in some of these, operated on for hematemesis, the loss of blood was so great that transfusion had to be performed on the table or immediately after. He considers a logical classification of gastric ulcer impossible. In the acute cases there are two indications for operation, threatened perforation and hemorrhage. The former can rarely be diagnosed beforehand. One special symptom that indicates the spread of ulceration is persistent cutaneous hyperesthesia in Head's epigastric triangle, especially when combined with a similar condition of the corresponding dorsal point. This means something going on in the wall of the stomach sufficient to render the corresponding spinal nerve segment unduly sensitive. He would recommend exploration when this symptom is present. A single hemorrhage is rarely fatal. Bleeding will stop if the stomach is given absolute rest, but if the pulse rate continues to grow quicker and quicker and the well-known restlessness and yawning has set in, he recommends exploration. He would also follow the same plan for a second severe hemorrhage occurring within a few days of the first and when the hemorrhage, though comparatively slight, returns repeatedly.

7. **Knock-Out Blows.**—The general impression that there is only one knock-out blow, that under the jaw, is an error, according to Duncanson. Even with boxing gloves now used, there are a number of such blows, and some may even be fatal. The temple is especially vulnerable, and a blow there may be followed by laceration of brain substance with hemorrhage. A swinging short-arm blow on the ear may cause rupture of the tympanum, dizziness and collapse, and a dangerous blow may be delivered on the neck so that when the head is pushed back, the side of the neck being exposed, the gloved hand is driven forcibly on a spot midway between the angle of the jaw and the sterno-clavicular articulation (the carotid hit). Another point is just on the larynx or hyoid bone. The danger in these blows is in the concussion through the large and important nerve trunks. A severe blow delivered on the chest wall about the region of the heart may cause syncope and death, especially if the muscles of the chest walls are relaxed and the lungs not expanded. Diaphragmatic blows are not, as a rule, dangerous to life. There is collapse, with difficulty in getting breath and sometimes unconsciousness. Brisk rubbing, external warmth and, if necessary, stimulants are the best treatment. Blows over the kidneys are somewhat perilous, and a blow over the pit of the stomach or what is called the "mark," a special area the size of the palm of the hand and corresponding with the center of the triangle formed by the xiphosternal articulation above and a line joining the bony ends of the seventh ribs below, just over the pyloric end of the stomach. The effects are due, according to Edgeworth Johnstone, to irritation of the pneumogastric setting up cardiac failure. The pugilist speaks of knock-out blows over the solar plexus, but it is the stomach that receives the shock and from it the nerve disturbance originates. When a man is knocked out and does not speedily rally, the best treatment is to get him away from his surroundings as soon as possible, wrap him well in warm blankets in bed and administer stimulants—strychnia hypodermically if necessary. Of course, if more serious lesions exist, such as fracture, the treatment must be conducted on recognized surgical lines.

The Lancet, London.

April 25.

8 The Symptoms and Diagnosis of Stone in the Kidney. R. Clement Lucas.
9 *Infective Endocarditis Mainly in Its Clinical Aspects. T. R. Glynn.
10 *Dietetics. Robert Hutchison.
11 *The Drainage of the Knee-joint in Acute Suppurative Arthritis. Harold L. Barnard.
12 Invagination of Meckel's Diverticulum. J. F. Dobson.
13 Notes of a Case of Extirpation of a Tumor of the Prostate for Retention of Urine. W. Prior Purvis.
14 A Case of Acute Ependymitis in an Infant. J. A. Coutts.
15 A Case of Dropsy, the Result of Inflammation of the Kidneys, Treated by Laparotomy. Henry P. Planer.

9. **Infective Endocarditis.**—Glynn's third lecture reviews some of the symptoms, such as excessive perspiration, epistaxis, diarrhea, vomiting, albuminuria, hematuria, and splenic enlargement. The physical signs are also noted. The difficulties of diagnosis are sometimes insuperable. In the absence of positive signs, the diagnosis depends on ability to exclude all affections other than acute endocarditis, likely to cause pyrexia, though this method may sometimes fail. There is a resemblance to pernicious anemia in some cases. Recovery is rare and no specific remedy has been found. The success with antistreptococcus serum is not what was expected.

10. **Dietetics.**—Two well-defined conditions of proper diet are given by Hutchison as: 1. That the food yields enough potential energy to supply the daily outgoings in the form of heat and work. 2. That it contains enough proteid to replace the daily and inevitable destruction of tissues. Somewhere between 2,500 and 3,500 calories will be required; probably 3,000 represent the requirements of the ordinary town dweller, and part of this must be supplied in the form of proteid. Whether this is obtained mainly from carbohydrates or fat depends largely on the digestive capacities of the individual and, to some extent, on his purse, as fats are more expensive than carbohydrates. As to the amount of proteid required to supply the waste, there is not full accord. The 120 grams recommended by Voit is larger than is considered necessary in many cases, but we do not know the minimum below which one can not go with safety. The tendency to overeat is responsible for much disease. A food, giving a maximum of volume with a minimum of nourishment would be a godsend

to many overfed persons. The excess of the proteid diet is principally responsible for much kidney and uric acid diathesis. One principle we must bear in mind is the interdependence of organs. We can not cut down the diet to treat a diseased stomach or kidney at the expense of the general nutrition. Ordinarily abrupt changes in the diet are to be avoided. He says there are only three great groups of diseases in which one can reasonably anticipate that dietetic means will be potent for cure. They are: 1. Diseases of the organs of digestion; 2, diseases of metabolism, fever, obesity, malnutrition, diabetes and gout where there is a perversion of the usual methods of dealing with nutrition, and 3, diseases of the excretory organs, especially the kidneys. As regards dyspepsia, Hutchison remarks that the mechanical form of food is always of more importance than its chemical composition. The meals of the dyspeptic should be small and contain no insoluble ingredients. The stomach should be humored to pass on the food. In most cases of functional disorder he thinks it well to give the stomach a little wholesome neglect. Overeating may be a serious evil. In bowel troubles we should consider the mechanical condition of the food. One should select a diet in diarrhea that has as little unabsorbed residue as possible. With constipation the opposite should be the aim. In fevers, it is a question, Hutchison thinks, whether we have not gone too far in the reaction from starvation. In all forms the carbohydrates should enter freely into the diet. Obesity is a disorder in which it is easy to overestimate the effects of diet. The proteids are less likely to cause harm than the carbohydrates and fats. Restriction of drinking at meals prevents overeating. Alcoholic liquors are likely to do harm. In diabetics there is a pretty general uniformity as regards diet. In renal disease Hutchison would follow the common opinion that in acute nephritis, especially when blood is present in the urine, an exclusive milk diet gives the best results, but in chronic nephritis affairs are more complicated. We should keep up a vigorous heart. Meats should not be excluded, but foods which contain only the extracts of meats without its albuminous elements should be rigorously avoided. Restriction of fluids in cases of dropsy is not contraindicated, and he would have no hesitation in recommending the dry diet to such patients.

11. **Suppurative Arthritis.**—Barnard would advise that in cases of suppuration of the knee joint with a temperature ranging from 103 to 104 the condition should be treated by anterior and posterior incision, especially if the suppuration results from punctured wounds. If suppuration arises from autoinfection and is subacute, with a temperature of not more than 102, he would be inclined, taught by the cases he here reports, first to make lateral incision on either side of the patella and to wash out the joint thoroughly and drain it. The joint should be treated as though it were an aseptic case, for in autoinfection we have usually to deal with one micro-organism only, and that often a mild one. We should be careful that in casting out one micro-organism we do not admit others worse than the first. Should this partial drainage fail to bring the temperature down in a day or two the posterior pouches should be laid open and thoroughly drained.

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Last indexed page 742.

16 (IV, 2.) *Die l'ichthyose fetale dans ses rapports avec l'ichthyose vulgaire. J. Méneau.
17 *Recurring Erythem. Gensollen.—De l'érythème polymorphe récidivant.
18 *Blastomyces et blastomycose. Gastou.
19 Syringe for Thick Oils. Chatin.—Seringue stérilisable pour injections d'huiles très denses (liplodol, iodipin, etc.)
20 (No. 3.) *L'eczéma considéré comme une réaction cutanée. L'eczéma suivant les ages. L. Brocq.
21 Lésions histologiques de l'épididymite blenorrhagique. C. Audry and Dalous.
22 Legal Responsibility of Employer for Syphilis Contracted in Glassblowing. L. Perrin.—Responsibilité civile d'un patron verrier, etc.
23 Un cas de pemphigus foliacé primitif. P. Meynet and N. Ribollet.
24 Essais de traitement de la syphilis par l'argent colloidal. Audry and Dalous. Two cases. Results comparatively negative.

16. **Relations Between Fetal and Ordinary Ichthyosis.**—Méneau regards both as links in one chain, different degrees of a single pathologic process. He appends a full bibliography.

17. **Recurring Polymorphous Erythema.**—Gensollen describes 5 and reviews 3 cases already published. The conditions with which it is most liable to be confounded are antipyrin erythema and herpetiform dermatitis. In case of an eruption in round, infiltrated patches, appearing abruptly with identical recurrences and persisting pigmentation, the patient ascribes the eruption to some preceding painful affection instead of to the antipyrin he took to combat it, the true source of the trouble. The pruritus in the affection described in the title is not so intense as in herpetiform dermatitis (Duhring), the attacks are briefer and the lesions are more in the form of a roundish elevation with a central depression. Blebs are accessory and inconstant.

18. **Blastomycetes.**—Gastou exhibited to the Société de Dermatologie specimens of blastomycetes sent by Dr. F. H. Montgomery of Chicago, derived from the lung of a man who had died with generalized blastomycosis. These parasites, Gastou mentions, have been discovered and described only by American writers to date. He queries whether the blastomycetes will share the fate of the coccidia, and suggests that the possibility of a secondary contamination proper to certain lesions or certain countries is not absolutely excluded. There can be no doubt, he adds, that yeasts might easily develop on wounds or ulcerations exposed to the air or defectively dressed. Yeast fungi exist in such numbers everywhere that the only wonder is that the phenomenon is not more frequent. It remains to be demonstrated, he concludes, which among these yeasts are or are not pathogenic or what conditions favor their becoming so.

20. **Eczema a Cutaneous Reaction.**—Brocq maintains that there is no such thing as eczema, but merely eczematous individuals. In a person of this category any one of a number of causes may induce the cutaneous reaction which we call eczema, while in other persons the same causes will never produce it. These causes may be sunshine, wind, light, dust, contact with certain articles of clothing, dyes, etc., intoxications, autointoxication, defective functioning of certain organs, lesions of organs, nervous impressions, worry or other emotions. The physician, therefore, should seek for the underlying cause. A change of environment may cure the most rebellious case. He has known country people cured by a trip to the city, as well as city people cured by going to the country. The diet and mode of life must be regulated in the first place. The patient must be "washed out," that is, put on a strict milk diet, with Vichy water and diuretics, supplemented by a large rectal injection every day or two. If milk can not be taken, he orders a vegetable and water diet. Freedom from worry and plenty of pure air are important; if possible, he sends the patient to the country or, better still, to the mountains. Under this régime the physician is liable to witness the most intractable eruptions disappear with relative rapidity, provided he is content with clean local non-irritating dressings, the parts protected from noxious influences, to enable the skin to repair its lesions with the least possible hindrances. Treatment on these principles will render the secondary exfoliating dermatoses much less frequent and much less severe.

Deutsche Med. Wochenschrift, Berlin and Leipsic.

25 (No. 15.) *Ueber die Indikationen zur chirurgischen Behandlung der Cholelithiasis und Cholecystitis. W. Körte.
26 Tödliche Anämie durch Botriocephalus latus. W. Zinn (Berlin).
27 *Sensitive, Simple and Rapid Test for Sugar with Oxalate of Phenyl Hydrazin. E. Riegler (Jassy).—Eine empfindliche, etc. Zuckerprobe mit oxalsaurem Phenylhydrazin.
28 Movable Double Diaphragm for Roentgen Photography. O. Pasche (Berne).—Ueber eine neue Blendenvorrichtung in der Roentgentechnik.
29 Ein kasuistischer Beitrag zur Aetiologie der diffusen Sklerodermie. Heynacher.
30 Successful Laparotomy for Swallowed Knife, 1684. A. Rosenberg.—Historia des preussischen Messerschluckers.
31 Prophylaxis of Tuberculosis Contagion at Health Resorts.—M. Karger.—Der Schutz vor Lungenschwindsucht in Kurorten, etc.
32 (No. 16.) *Ueber die systematische antifebrile Behandlung des Unterleibs-Typhus mit Pyramidon. Valentini (Dantsic).

33 Influence of Courses of Mineral Waters on Osmotic Tension of Blood. J. Grossman (Bucharest).—Ueber den Einfluss von Trinkkuren mit Mineralwässern auf den osmotischen Druck des menschlichen Blutes.
34 *The Reflex Route of "Catching Cold" and of Temperature Irritations in General. O. Kohnstamm.—Der Reflexweg der Erkältung und der Temperaturreize überhaupt.
35 *Action of Collargol in Septic Affections. H. Schmidt.—Ueber die Wirkung intravenöser Collargol-Injektionen bei septischen Erkrankungen. (Commenced in No. 15.)
36 *Toxic Myolysis of Heart in Diphtheria. H. Eppinger (Graz).—Die toxische Myolyse des Herzens bei Diphtheritis. (Commenced in No. 15.)
37 *Ueber Antistreptokokkenserum. F. Meyer.
38 Veterinary Diseases in the Cameroon District. Ziemann.—Vorläufiger Bericht über das Vorkommen des Texasfiebers, Tsetsekrankheit, Thier-Malaria in Kamerun, etc.

25. **Indications for Surgical Treatment of Gallstones.**—Körte grows more conservative in his indications for operation, with riper experience, but more radical when surgical intervention is once decided on. Rapidly transient icterus with passage of stone is no indication for operation. But when the lithiasis imperils life, even when the attack subsides, there can be no question of permanent healing of the gall bladder in such cases. Severe and complicated cholelithiasis is accompanied by general depression, which may be the first sign of the infection of the gall bladder before icterus attracts attention to this organ. Protracted fever, persisting after an attack, especially if of the remittent type or accompanied by chills, is suspicious of pus formation and indicates intervention, as does also tenderness of the gall-bladder region. Nodules in the liver, with ascites, contraindicate operation, as they are due to carcinoma in an advanced stage, but sometimes inflammatory adhesions in the omentum simulate these nodules. An exploratory laparotomy is justifiable in case of doubt. Chronic empyema of the gall bladder, acute infectious empyema and signs of occlusion of the common bile duct are urgent indications for intervention. The prognosis is good so long as the stone formation is limited to the gall bladder and cystic duct and there are no evidences of intense inflammation. He prefers to take out the gall bladder in most cases, as this does away with the focus of infection. The great majority of stone patients who suffer only occasionally and are well in the intervals, belong in the hands of the physician until the attacks recur so often or are so severe that the patient himself longs for radical treatment or the physician deems that the proper moment for intervention has arrived. The mere existence of stone does not demand intervention. The indications depend on the kind and degree of the resulting inflammation.

27. **Improved Test for Sugar.**—Riegler's test reveals sugar, even in a proportion of merely .05 per cent., and requires only three minutes. The presence of albumin does not interfere with the results. Twenty drops or 1 c.c. of the urine or other solution of sugar is placed in an ordinary rather large test glass, with as much phenyl hydrazin oxalate as can be taken up on the tip of a knife, with 10 c.c. of water. The mixture is then boiled and shaken until all is dissolved. Then 10 c.c. of a 10 per cent. solution of caustic potash is added, the glass stoppered and well shaken, when the fluid turns a handsome purple in less than a minute if it contains sugar. The oxalate can be made by heating 20 gm. of phenyl hydrazin hydrochlorate in 300 c.c. water until dissolved and then adding 10 gm. of ammonium oxalate dissolved in 100 c.c. of water. The crystals are collected on a filter as soon as they are cool and, after rinsing and drying, are ready for use and keep indefinitely.

32. **Success of Pyramidon in Typhoid.**—Valentini proclaims that better results can be accomplished with the continuous administration of pyramidon than with the Brandt baths. The temperature is reduced entirely or very nearly to normal in the course of twenty-four hours and does not rise again. The pulse slows down and the delirium completely subsides. The pyramidon is given in water, .2 gm. in mild and .3 to .4 gm. in the severer cases, the dose repeated every two hours during the entire course of the disease. No inconveniences of any kind were observed, even when the patients took this amount regularly every two hours night and day for four or five weeks. The effect of the pyramidon is so remarkable, he states, that it is not advisable to commence it until the diagnosis of typhoid is positive, as otherwise the symptoms are so masked that the physician is at a loss. The end of the first week is soon enough. The duration of the disease does not seem to be shortened but the patients are able to wait on themselves, and the danger of contagion of others is much reduced, as the patients can use the urinals and bed pans without soiling the linen. Out of 19 typhoid patients treated in this way, 12 were very severe cases, and 2 died, one with pyemia and pneumonia, another from heart failure in the third week. The pulse in the latter case had been continuously bad and the autopsy showed brown atrophy of the heart and enlarged spleen, while the ulcerations were healing.

34. **Reflex Route of Temperature Irritations.**—Kohnstamm is subject to catarrh of the upper air passages, invariably preceded by some exposure to cold, and then assuming the infectious character, contagious for those around him. He has found that careful protection from chilling, especially at night, pyramidon in several doses to a total of .3 gm. and diversion of the mind will prevent and cure the affection. Psychic diversion, he finds, not only diminishes the cutaneous irritation but also the mucous secretion in the most striking manner. He has been studying the reflex routes for these effects in the upper air passages after chilling some part of the body, and gives diagrams to explain his assumption that the temperature and pain fibers run in Gower's tract on the crossed side, and that the "cold" nerve track is in closer relations with the respiration center than the "heat" nerve track. This close connection is the cause of the "chilling reflex." When the microbian factor is added, catarrh is the result. From the respiration center the centers governing the muscles of expiration are irritated to coughing and sneezing, and those governing vasodilation in the vago-trigeminal domain are irritated to congestion. This "chilling reflex" is normally a stimulant for the vegetative processes, and is useful in this respect in "fresh air cures" and light baths.

35. **Action of Intravenous Collargol Injections in Septic Affections.**—Since Credé first suggested, in 1896, the use of soluble silver he has used it in intravenous injection in numerous cases of septic affections, which Schmidt reviews in this article, as also the experiences published by others. A number of cases personally observed are described in detail as typical instances of the benefit derived from the measure. Credé does not think it necessary to call on a catalytic or other action, as he thinks the bactericidal power of silver is sufficient alone to explain the results observed. Beyer has established that a proportion of 1/80,000 in serum nutrient media has an inhibiting effect on bacterial proliferation. All in all, Schmidt concludes, six years of experience have confirmed the fact that we have in collargol an extraordinarily powerful aid for fighting the most diverse infectious conditions, which has won for itself a prominent place in therapeutics, and is free from the limitations of specific curative serums as it is convenient, inexpensive and can be used at any time and in any place in any septic affection.

36. **Toxic Myolysis of the Heart in Diphtheria.**—Eppinger is engaged on a large work descriptive of the pathologic anatomy of fatal diphtheria. In this preliminary report he states that his attention was attracted to the frequency of death from paralysis of the heart after diphtheria, and that he has found that the diphtheria toxin causes a disintegration and dissolving of the heart muscle fibers. He describes the process as "myolysis cordis toxica." He found it pronounced in all the 18 cases he has examined, including one in which serum treatment had not been instituted. He has previously established that in certain disturbances of the hearing subsequent to diphtheria the trouble consists in focal edematous softening of the nerve fibers of the acoustic nerve, and the lesions noted in the heart correspond with this conception of the effects of the toxin.

37. **Antistreptococcus Serum.**—Meyer has been testing Aronson's new serum. It proved very effective in 5 out of 18 cases, but seemed to have little if any influence on the others. It displayed remarkable power in experiments on animals.

Its absolute harmlessness and its efficacy in a certain proportion of clinical cases justify its application on a wide scale.

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Last indexed XXXIX, page 1621.

39 (XVII, 1.) Question of Operating on Female Internal Organs. F. Frank (Cologne).—Beiträge zur Frage des Operirens an inneren Organen der Bauchhöhle beim Weibe.
40 *Pseudohermaphroditismus und sekundäre Geschlechtscharactere: ferner drei neue Beobachtungen von Pseudohermaphroditismus beim Menschen. A. Hengge (Greifswald).
41 *Ueber den Schatz'schen Metranoikter. B. Daniel (Hamburg).
42 *Ueber Chorea gravidarum. H. Hirschl (Prague).
43 *Obituary of Max Sänger.
44 (No. 2.) *Ueber einen Fall von Hydramnion. W. Zangemeister (Leipsic).
45 *Serial Sections of Caput Succedaneum. I. Lönnberg (Upsala).—Eine Serie Gefrierdurchschnitte durch eine Kopfgeschwulst.
46 *Changes in Uterus in Acute Infectious Diseases. C. Stravoskiadis (Vienna).—Ueber die Veränderungen des Uterus bei akuten Infektionskrankheiten. (Commenced in No. 1.)
47 Die Hysterektomie in der Behandlung der puerperalen Infektion und die Peritonitis im Puerperium. A. Sippel (Frankfort-a.-M.)
48 *Study of Origin of Uterine Cancer. A. Stein (Posen).—Beiträge zur Kenntnis der Entstehung des Gebärmutterkrebses.
49 Fall von hydronephrotischer Wanderniere. R. U. Boerma (Dresden).
50 *Zur Eklampsiestatistik. Hans Schroeder (Bonn).
51 (No. 3.) *Ein klinischer Beitrag zur Lehre vom Hydramnios. O. Fellner (Vienna).
52 Ueber Mola haematomatosa tubarica. Ersillio Ferroni (Pavia).
53 *Management of Contracted Pelvis. A. v. Magnus (Königsberg).—Zur Therapie des engen Beckens. (Commenced in No. 2.)
54 *Complication of Delivery by Extensive Varices. M. Dützmann (Greifswald).—Geburtskomplikationen bei ausgedehnter Varicenbildung.
55 Ueber die chirurgische Behandlung der Sactosalpinx purulenta. Lichtenauer (Stettin).
56 (No. 4.) Ueber eine seltene, vom Typus abweichende Form des Chorionepithelioms mit ungewöhnlichem Verlaufe. C. Fleischmann (Vienna).
57 *Beitrag zur operativen Behandlung der Myome in der Gravidität. Frank (Olmutz).
58 Neoplasms Originating in Round Ligament. O. Nebesky (Innsbruck).—Zur Casuistik der vom Ligamentum rotundum uteri ausgehenden Neubildungen.
59 Case of Coincidence of Various Genital Tumors. O. Frankl (Vienna).—Ein Fall von Cumulierung verschiedenartiger Genitaltumoren.
60 *Anatomy of Lymph Routes in Ovary. O. Polano.—Beiträge zur Anatomie der Lymphbahnen im menschlichen Eierstock. (Commenced in No. 3.)
61 *Zur Frage über die operative Behandlung der Uterusruptur. N. Kolomenkin (Moscow).
62 Zur Anatomie des Plexus fundamentalis uteri beim Weibe und bei gewissen Tieren. S. Pissemski (Kiev).

40. **Pseudohermaphroditism and Secondary Sexual Characteristics.**—Hengge describes two "sisters," both of whom possessed the bodily and psychic female characteristics except that testicles were present in the large labia. On account of local sensitiveness and general disturbances the testicles were removed from the unmarried "sister." A study of the literature concerning the etiology of the malformation and the development of sex characteristics, as well as a consideration of therapy, lead to these conclusions: 1. Numerous deviations from the usual rule of the dependence of sexual characteristics on the sexual glands are found. 2. The earlier any change occurs in the sexual glands the greater are the changes in the secondary sex characteristics. 3. Congenital disturbances in the sexual glands and secondary characteristics are generally due to mechanical causes. Sometimes trophic or nervous influences may be assumed. 4. In the development of dysmenorrhea and psychic female characteristics in the case of male hermaphrodites, education and example are of great influence. 5. Operative removal of sexual glands is indicated only when they cause much pain and their functionating is impossible.

41. **Schatz's Uterine Dilator.**—Since all of the usual methods of dilating the uterus, namely, the use of the metrotome, the branched and cylindrical dilators, the tamponade and the swelling tents, have frequently proved imperfect and unsatisfactory, Daniel is surprised that Schatz's metranoikter, first described in 1881, has received so little attention. It consists of two nickel-plated steel semi-cylinders united at one end by a spring of the diameter of an ordinary vaginal speculum. When the half cylinders are held in contact with their flat faces together they form a rod or sound 5.5 cm. long and about 5 mm. in diameter. The dilator is closed and introduced into the uterus by a holder or forceps. The application is easy and requires no anesthetic. Its action is prompt and attended with little pain. It has been used in Prochownick's clinic for the last three years for dilating the uterus previous to curettement and for diagnosis in cases of intrauterine growths. It may also be of value in the induction of labor and some other obstetrical operations.

42. **Chorea of Pregnancy.**—Hirschl considers the great rarity of this disease, its causes and treatment, and describes a case of severe chorea which terminated in complete recovery after spontaneous premature labor. In regard to treatment he defends the conclusion of Knapp that in milder cases one should try dietetic and medicinal measures, but that some cases furnish us strict indications for abortion and premature labor.

43. **Obituary of Max Saenger.**—Saenger was one of the founders of the "Monatsschrift." Very sympathetic accounts of his life and work are written by his coworkers, Martin and Rosthorn. Then follow the autobiographical and autobibliographical notes left by this great gynecologist.

44. **Hydramnion. Origin of Liquor Amnii.**—A careful study of the maternal blood and of the liquor amnii in a case of hydramnion in the Leipsic clinic was made for the purpose of studying the origin of the liquor amnii and its pathologic increase. A disturbance of the fetal circulation was no doubt present in this case, caused by knots in the cord. The slowing of the fetal circulation could not have increased the amount of liquor amnii by increasing the fetal kidney secretion. The urinary part of the liquor amnii was diminished, as shown by examination. The blood of the mother showed an increase in water and urinary products. Zangemeister concludes that maternal and fetal blood and liquor amnii are, so far as the crystalloid substances are concerned, a single fluid separated by permeable membranes. Hence the question of the maternal or fetal origin of the permeable part of the liquor amnii has no significance, as also the presence of urinary products in the liquor amnii has no bearing on its origin from the kidneys.

45. **Structure of Caput Succedaneum.**—In numerous sections on new-born children Lönnberg has found that the common description of the caput succedaneum as a subcutaneous transudate is incorrect. He describes and pictures seven serial sections through a large tumor of that kind which show that it is a serohemorrhagic transudation in all layers of the skull covering, including the skin, but that the chief part is between the galea and the periosteum.

46. **Uterine Disturbances Due to Infectious Diseases.**—A review of the literature shows that exact observations and examinations to determine the effect of acute infectious disease on both the pregnant and the non-pregnant uterus are rare. To fill this lack Stravoskiadis examined, in Weichselbaum's laboratory, 24 cases, including pneumonia, typhoid fever, pyemia, etc. Macroscopic, microscopic and bacteriologic examinations were made. The following conclusions were reached: 1. An acute endometritis which is often hemorrhagic is of frequent occurrence in acute infectious disease. 2. This inflammation is caused by the specific bacteria that cause the disease or a complication. 3. Particularly favorable conditions are present during pregnancy and the puerperium for the increase of the bacteria which reach the uterus through the blood current. 4. Abortion or premature labor is frequently due to endometritis of hematogenous origin.

48. **Origin of Uterine Cancer.**—Stein reports two rare or unique cases, one of a combination of uterine tuberculosis and cancer and the other of uterine cancer with displacement of mucous membrane within the musculature. He discusses the possible etiologic relation of these conditions to cancer.

50. **Eclampsia Statistics.**—Schroeder calls attention to the unsatisfactory condition and incompleteness of the eclampsia statistics which give a false picture of the relation between albuminuria and eclampsia. For the purpose of securing more complete data a new scheme of urine examination has been

introduced into the Bonn clinic. It aims to determine: 1. How often albuminuria is lacking during eclampsia? 2. How often albuminuria appears first after several convulsions? 3. How often eclampsia follows nephritis? 4. What is the relation of eclampsia to the different kinds of nephritis? 5. In what kind of nephritis is the eclamptic mortality least?

51. **Hydramnion and Large Children.**—Fellner calls attention to the fact hitherto unnoted that in cases of hydramnion the child is unusually large. He has discovered this fact by the study of 124 cases of hydramnion in 13,000 labors in Schauta's clinic, and gives the data covering the length and weight of the children. The unusual size of the child can not be the cause of the hydramnion. Fellner explains both the increase in the size of the fetus and the amount of liquor amnii by the increase in growth of trunks of the placental villi. These enlarged villous trunks are associated with enlarged placentæ and permit an increased flow of blood.

53. **Management of Labor in Contracted Pelves.**—Magnus bases his paper on a study of 874 cases treated in Königsberg from 1883 to 1900. Pelves are called contracted that have a conjugata vera of 9.75 cm. or less. They are divided into flat and generally contracted. The latter include only those whose transverse diameter is shortened 2.5 cm. or more, and comprise 5.8 per cent. of the whole. The results for mother and child in both kinds of pelves are studied in spontaneous labor, forceps, craniotomy and version and extraction. The conclusions reached for the therapy of contracted pelves are as follows: Management of primipara: In case of contracted pelvis of slight and of medium degree we should wait for spontaneous passage of the head. Should indication for termination of labor arise, with the head partly engaged in the inlet, careful attempts at extraction with high forceps may be made. Should this fail, perforation should be done, unless the mother is very anxious for a living child, when symphysiotomy may be done. With movable head, dilated cervix, unruptured bladder and indications from the side of the child, pressing the head into the pelvis should first be attempted and then, in case of failure, turning and extraction. With a maternal indication only perforation should be done. Management of multipara: In pelves from 9.75 to 8 cm. spontaneous labor occurs in three-fourths of all cases. Hence we should adopt the expectant policy. When, after dilatation of the cervix, the head does not enter the pelvis, we should turn and extract. How long one should wait depends on the character of the pains and the amount of the thinning out of the lower uterine segment. No attempt at turning should be made very long after the rupture of the membranes. Before perforation a careful attempt at forceps extraction should be tried. With pelves from 8 to 7 cm. induction of labor in the thirty-fifth to thirty-seventh week, with metreurysis is advised. At the end of gestation in case of spontaneous delivery, perforation is necessary unless the mother wishes a living child, when symphysiotomy or Cesarean section may be done.

54. **Genital Varices in Labor.**—Dützmann relates five cases, one fatal, which show the great danger from this condition. During pregnancy ergot may be of value, but its use may cause premature labor. Expectant management is necessary after labor begins. Slow labor is desirable, and bearing down on the part of the patient should be avoided. Should the varices be injured, careful suture is the only therapy, for tamponade is useless. Since the hemorrhage, in case of injury to the vessels, is apt to be very great, the physician should be prepared beforehand in every case of varix to operate immediately on the birth of the child or the beginning of hemorrhage.

57. **Operative Treatment of Uterine Myoma in Pregnancy.**—Operative interference during pregnancy is indicated: 1. When the tumor grows rapidly or when threatening disturbance of circulation or respiration appear. The condition of the tumor indicates the operation, myotomy or hysterectomy. 2. When the tumor causes peritonitic symptoms. 3. When it is located in the collum or vaginal part, because it is here apt to disturb labor or childbed, and also become gangrenous. 4. When in the form of polyps. The operations during labor are also considered and illustrative cases reported.

60. **Lymph Vessels of the Ovary.**—Polano studied, by histologic examinations, by injections and by experiments on animals, the question of the origin of ovarian lymph channels and their relation to blood vessels. The macroscopic picture of injected specimens shows the lymph channels arranged in a radiating manner, converging at the hilus into nine larger vessels, which pass out along the free border of the ligamentum ovarico-pelvicum. An anastomosis with the uterine or tubal lymph systems is exceptional. Within the ovary fewer vessels are found in the peripheral layer than in the central stroma. Around the follicles the lymph vessels have a circular arrangement. The conclusions reached from the study of stained and injected specimens is that lymph spaces always appear as a capillary system of varying form but similar structure. A connection with connective tissue spaces was not determined. No connection between lymph channels and blood vessels was found. Hence the conception of perithelium in the anatomy and pathology of the ovary can be dropped.

61. **Operative Treatment of Rupture of the Uterus.**—Kolmenkin reports five cases which recovered after operation. Without treatment the mortality is 70 per cent., two-thirds of which are due to hemorrhage and one-third to sepsis. After considering the nature and source of hemorrhage he concludes that it is chiefly secondary, not primary hemorrhage that threatens life. Tears in the lig. lata are most dangerous. Delivery per vias naturales is dangerous on account of secondary hemorrhage. Since nearly all wounds in uterine rupture become infected the rational therapy is that which enables us best to control infection. The conclusions reached from theoretical considerations from a study of statistics are as follows: 1. There is no real difference between complete and incomplete rupture. 2. Operation gives much better results than conservative management (tamponade and drainage) and should substitute it where possible. 3. Celiotomy with sutures of the tears gives much poorer results than hysterectomy and should be used only in special cases. 4. Total abdominal extirpation with vaginal drainage gives best results. Vaginal extirpation and also the Porro operation have sometimes a place.

Corr.-Blatt f. Schweizer Aerzte, Basle.

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63 (XXXII, No. 24.) *Infantile Scorbutus in Switzerland. E. Hagenbach-Burckhardt.—Die Barlow'sche Krankheit in der Schweiz.
64 *Clinical Significance of Acquired Diverticula in Intestines. R. Stierlin.—Klin. Bedeutung erworbener Darmdivertikel.
65 *Apparatus for Local Application of Heat. N. Platter.—Ueber Leiter'sche Wärmeapparate.
66 (XXXIII, 1.) *Die präventive Chirurgie. O. Lanz.
67 (No. 2.) *Zur Behandlung des Puerperal-Fiebers. O. v. Herff.
68 *Rectal Feeding. P. Deucher.—Ueber Rektalernährung.
68½ Obituary of Rudolf Massini.
69 (No. 3.) *Report of 100 Cases of Cholelithiasis Treated by Chologen. R. Glaser (Muri, Aargau).—Die Heilung der Cholelithiasis durch Chologen und Bericht über meine ersten 100 Fälle.
70 Success of Kalagua in Treatment of Tuberculosis. H. Frey.—Zur Therapie der Tub.
71 Indications for Sitz Baths. N. Platter.—Nochmals über Sitzbäder.

63. **Infantile Scorbutus in Switzerland.**—Burckhardt describes the eighth case of Barlow's disease observed in his country. The case was marked by temperature to a maximum of 104 F., prolonged for a number of weeks, suggesting a severe infection or intoxication. The child was rachitic, 11 months old, and had been fed on sterilized cow's milk and oatmeal after three weeks at the breast.

64. **Clinical Importance of Acquired Diverticula of Intestines.**—Stierlin describes 3 cases, all with a fatal termination. In one the diverticulum became perforated, with subsequent diffuse peritonitis; stenosis was observed in the second patient, and in the third a communication between the bladder and flexure. Such diverticula possibly owe their origin to stagnation in the mesenteric veins. This view is sustained by the fact that they have never been found in young persons except in those suffering from inanition, heart insufficiency or marasmus. Eichhorn and Graser have described a case each

with coexisting cardiac defect. The diverticula do not cause symptoms so long as there is no inflammation in them. In his own case an old inguinal hernia in a robust man of 71 suddenly became uncontrollable and caused severe pains. All attempts to reduce it were fruitless and a perforation was found near the sigmoid flexure. It was in the middle of a patch of induration the size of a dollar in the intestinal wall and surrounded by evidences of suppurative peritonitis. The hard patch was assumed to be a carcinoma, and the portion of intestine involved was resected and the stumps united by lateral anastomosis. The results at first were good, but the patient succumbed fifteen days later, the heart found much degenerated. The indurated patch that had been resected proved to be merely an infiltration of the subserous adipose tissue; the perforation had occurred in a long narrow diverticulum passing through it. Stierlin thinks that these acquired diverticula would be found more frequently if sought for. Graser found incipient diverticula in 10 out of 38 cases in which the flexure was examined.

65. **Leiter's Apparatus for Local Heat or Cold.**—The apparatus is a sheet of zinc on which a tube is coiled back and forth and soldered, allowing a constant flow of water through it.

66. **Preventive Surgery.**—This address was delivered by Lanz on assuming the chair of surgery at Amsterdam. He asserts that internal medicine has not yet learned to profit by surgery to the fullest possible extent. Disturbances due to mechanical causes require mechanical removal of the cause, active intervention, which the surgeon can now proffer with confidence, as preventive surgery has ripened under the sun of anesthesia and asepsis. He believes in operating every hernia as a prophylactic measure. He noted abnormally large inguinal rings in 140 out of 750 recruits examined, all candidates for hernia later. In regard to appendicitis, he remarks that the first day the prognosis is certain, afterward it is as variable as the disease itself. He operates on the first day whenever possible, especially on children, and the results confirm him in advocating this as a routine measure in all cases of appendicitis, not waiting for further symptoms after diagnosis. He describes a typical case, the child of a physician, taken suddenly with abdominal pains and vomiting. He quieted down under opium and slept tranquilly, but the surgeon was able to palpate a swollen, tender appendix, and it was removed at once and found on the point of gangrene. Lanz believes that certain families have a tendency to appendicitis. He recently operated on three brothers or sisters on one day, all with appendicitis and another sister had passed through a similar experience. Internal medicine must not be jealous of her younger sister, but recognize her as an invaluable ally. The more powerful the ally, the better the results accomplished.

67. **Treatment of Puerperal Infection.**—From his personal observation v. Herff is convinced that the results of causal therapy are not always certain, and treatment is reduced to combating symptoms in most cases. He considers absolute immobilization of the patient very important to favor healing, if necessary using codein or morphin. Involution of the uterus should be promoted in every possible way, and the strength should be kept up by appetizing forced feeding, avoiding alcohol. The heart should be stimulated with small doses of strychnin, which he finds more effective than caffein. The fever requires no treatment unless very prolonged and interfering with sleep. He rejects local treatment. Intrauterine injections might be tried at the onset, but if they fail to benefit they should be suspended early. The curette should not be used at all.

68. **Rectal Feeding.**—Deucher advocates more general use of saline injections, which answer the purpose of transient rectal feeding in cases of inoperable carcinoma of the stomach or esophagus. The patients suffer from thirst rather than hunger, and absorption from the intestines is poor. Saline injections are also useful in cases of heart collapse or diarrhea and also in hyperchlorhydria and atony of the stomach, and occasionally in uncontrollable vomiting. They are useful after abdominal operations as they do not induce reflex phenomena. Actual feeding by the rectum, however, is of especial value in case of recent gastric ulcer or corrosion from caustics. When more substantial alimentation is required, eggs in a saline solution or a solution of cane or grape sugar will be found very useful. The sugar is almost completely absorbed and so rapidly that it does not have time to ferment.

69. **New Treatment of Gallstones—Chologen.**—Glaser explains cholelithiasis as essentially a nervous affection, not primarily an infection. The primary factor is a functional disturbance in the nerves of the liver governing secretion; secondarily, occur excretion of cholestearin and infection of the bile; thirdly, excretion of calcium bilirubinate, and fourthly, the formation and impaction of a stone in the neck of the gall bladder and development of local hyperesthesia. Treatment should combat all these factors. Glaser thinks that he has accomplished this by a combination of mercury with aromatic vegetable substances out of the laxative and bile-stimulating group (podophyllin) and the colic-soothing roots and oils (melissa, camphor and caraway). He uses three combinations, which he calls "chologen Nos. 1, 2 and 3." He has thus treated 73 women and 27 men; 78 per cent. have been completely cured; 16 per cent. improved, and 6 per cent. showed no appreciable benefit. Recurring cholecystitis was the trouble in 33 women and 6 men; 29 women and 4 men were cured, and the others improved, except one woman. Ten women and 3 men suffered from acute occlusion of the common bile duct, all were cured but one woman; from chronic occlusion of the common bile duct, 25 women and 17 men, of whom 19 women and 14 men were cured and the others improved except 2 men. The 78 per cent. whom he calls cured have remained well, with no symptoms of recurrence, are able to work and eat without restrictions. They include a number of very severe cases. There are no contraindications to this treatment, according to his experience. Old and young, cardiac patients and pregnant women took the chologen without inconveniences of any kind. Only in case of catarrh of the large intestine the chologen sometimes induced abdominal pains, but the catarrh was not aggravated and the curative effect of the treatment was not diminished. Even in dubious cases the chologen may prove useful, as he has established its efficacy also in cases of nervous stomach cramps. It will never fail if correctly administered, unless in case of existing empyema of the gall bladder, extensive inflammatory adhesions or malignant neoplasms. He considers the appearance of icterus a favorable sign, as it indicates that the stone has passed into the common bile duct, and this class of cases responds the best to chologen treatment. He relates typical examples, among them the case of a man of 49 who had suffered for ten years from gallstones. The attacks were frequent and extremely painful, with pruritus and icterus, constipation or diarrhea, the urine red and dark colored, the patient extremely feeble. Two tender points were found, one over the gall bladder and the other typical of chronic occlusion of the common bile duct, about 3 finger-breadths above and to the right of the umbilicus. Four weeks after the chologen treatment was instituted the patient returned strong and apparently well and has been healthy since then (July, 1901). The preparation of the chologen tablets has been entrusted to the laboratory of H. Rosenberg, Achenbachstrasse 2, Berlin W. They can be obtained only on a physician's prescription. Besides this mercurial chologen treatment Glaser insists on relief from nervous strain, out-of-door exercise, the diet regulated but abundant, and meat and vegetables allowed. Warm saline baths are valuable adjuvants. Some of the disturbances may be caused by adhesions, and these can be remedied by wearing a supporting bandage or reclining on a certain side. When an attack threatens he applies a flannel cloth moistened with equal parts poppy-seed oil and chloroform. The total amount of mercury taken in the three to four months' course of chologen treatment is only .5 to 1 gm. In a second communication in No. 6 he states that his second series of 100 cases has proved equally successful.

Books Received.

Acknowledgment of all books received will be made in this column, and this will be deemed by us a full equivalent to those sending them. A selection from these volumes will be made for review, as dictated by their merits, or in the interests of our readers.

KING'S COLLEGE HOSPITAL REPORTS, Being the Annual Report of King's College Hospital and the Medical Department of King's College. Edited by Norman Dalton, M.D., F.R.C.P.; Albert Carless, M.S., F.R.C.S.; John Phillips, M.A., M.D., F.R.C.P.; W. D. Halliburton, M.D., F.R.S. Volume VII. (Oct. 1, 1899-Dec. 31, 1900.) Cloth. Pp. 457. Price, 7s. 6d. London: Adlard & Son. 1901.

HYGIENIC LABORATORY—BULLETIN NO. 12.—THE BACTERIOLOGICAL IMPURITIES OF VACCINE VIRUS. An Experimental Study. By M. J. Rosenau, Director of Hygienic Laboratory. Paper. Washington: Government Printing Office. 1903.

TWENTY-SIXTH ANNUAL REPORT OF THE BOARD OF HEALTH OF THE STATE OF NEW JERSEY, 1902. Cloth. Pp. 365. Trenton, N. J.: J. L. Murphy Pub. Co. 1903.

TWENTY-FIRST ANNUAL REPORT (FOR THE YEAR 1902) OF THE BALTIMORE EYE, EAR AND THROAT CHARITY HOSPITAL. Paper. Pp. 24.

The Public Service.

Army Changes.

Movements of Medical Officers, U. S. A., under orders from the Adjutant-General's Office, Washington, D. C., from April 19 to 25, 1903:

Anderson, Robt. A., contract surgeon, is relieved from duty at Ft. Duchesne, to take effect on the arrival at that post of First Lieut. Geo. H. R. Gosman, asst.-surgeon, and will then proceed to his home, Clarkedale, Miss.

Devereux, Thomas, first lieut. and asst.-surgeon, is assigned to duty as transport surgeon, Army transport *Sumner*.

Cleary, Peter J. A., colonel and assistant surgeon-general, will proceed to Ft. McIntosh, Ft. Ringgold and Ft. Brown on business pertaining to the inspection of the medical and hospital departments at those posts.

Fuller, Leigh A., captain and asst.-surgeon, is relieved from duty in the Division of the Philippines and will report to the commanding general of that division for assignment to duty with troops en route to the United States via the Suez canal.

Fisher, Henry C., captain and asst.-surgeon, will proceed from Baltimore, Md., to Ft. Preble and report to the commanding officer, Artillery District of Portland, for temporary duty at Ft. McKinley, during the Army and Navy maneuvers of 1903.

Lynch, Charles, captain and asst.-surgeon, will proceed about May 1, from Fort Porter to Fort Preble and report to the commanding officer, Artillery District of Portland, for temporary duty at Ft. Levett during the Army and Navy maneuvers of 1903.

McCall, James H., contract surgeon, is relieved from duty at the U. S. General Hospital, Presidio, and will proceed to Columbia Arsenal, Tenn., for duty, to relieve Contract Surgeon Frederick D. Branch, who will proceed to Ft. Ethan Allen for duty.

The following named officers are detailed to represent the medical department of the Army at the twelfth annual meeting of the Association of Military Surgeons of the United States, to be held in Boston, May 19 to 21: Major Wm. C. Bordon, surgeon; Captain Geo. D. DeShon, asst.-surgeon.

Navy Changes.

Changes in the Medical Corps of the Navy for the week ending May 2, 1903:

Medical Director T. C. Walton, retired, ordered to duty as senior member of a board of officers at the Naval Academy.

Surgeon G. T. Smith, ordered to duty as a member of a board of officers at the Naval Academy.

Asst.-Surgeon M. V. Stone, granted sick leave for three months.

Asst.-Surgeon M. W. Baker, ordered to duty as member and recorder of a board of officers at the Naval Academy.

Asst.-Surgeon R. B. Williams, detached from the *Decatur* and ordered to the *Chauncey*.

Asst.-Surgeon J. H. Holloway, detached from the *Franklin* and ordered home to wait orders.

P. A. Surgeon E. J. Grow, when discharged from treatment at the Naval Hospital, Mare Island, Cal., ordered to duty at that hospital.

Asst.-Surgeon C. G. Smith, detached from the *Marietta* and ordered to the *Newport*.

Marine-Hospital Changes.

Official list of the changes of station and duties of commissioned and non-commissioned officers of the Public Health and Marine-Hospital Service for the seven days ended April 30, 1903:

Assistant Surgeon-General W. J. Pettus, granted leave of absence for seven days from April 26.

Surgeon Preston H. Bailhache, five days' leave of absence from April 29, 1903, under provisions of Paragraph 189 of the regulations.

Surgeon Irwin Fairfax, granted leave of absence for seven days from April 28.

Surgeon C. T. Peckham, granted leave of absence for five days from April 1, 1903, on account of sickness, under provisions of Paragraph 191 of the regulations.

P. A. Surgeon H. B. Parker, relieved from duty in the Hygienic Laboratory and directed to proceed to Vera Cruz, Mexico, for special temporary duty as chairman of the working party of Yellow Fever Institute.

Asst.-Surgeon Edward Francis, relieved from duty at the Hygienic Laboratory, and directed to report to P. A. Surgeon H. B. Parker and proceed to Jalapa, Mexico, for special temporary duty, as member of working party of Yellow Fever Institute.

A. A. Surgeon P. N. Barnesby, granted leave of absence for two days from April 13, 1903, on account of sickness, under provisions of Paragraph 191 of the regulations.

A. A. Surgeon A. P. McConnell, leave of absence for three days from April 20, 1903, granted by Bureau letter of April 16, 1903, revoked.

A. A. Surgeon W. J. O'Reilly, granted leave of absence for twenty days from April 4.

A. A. Surgeon H. H. Stearns, granted leave of absence for seven days from April 15, 1903, on account of sickness, under provisions of Paragraph 191 of the regulations.

Pharmacist M. H. Watters, granted leave of absence for eight days from May 4.

BOARD CONVENED.

Board convened at Washington, D. C., April 30, 1903, for the physical examination of an applicant for appointment in the Revenue Cutter Service. Detail for the board: Assistant Surgeon-General L. L. Williams, chairman; Assistant Surgeon-General H. D. Geddings, recorder.

Health Reports.

The following cases of smallpox, yellow fever, cholera and plague have been reported to the Surgeon-General, Public Health and Marine-Hospital Service, during the week ended May 2, 1903:

SMALLPOX—UNITED STATES.

Alabama: Mobile, April 18-25, 6 cases.
California: Los Angeles, April 4-11, 7 cases; San Francisco, April 12-19, 6 cases.
District of Columbia: Washington, April 18-25, 1 case.
Georgia: Atlanta, April 15-29, 5 cases.
Illinois: April 18-25, Belleville, 1 case: Chicago, 17 cases; Galesburg, 3 cases.
Indiana: Indianapolis, April 18-25, 1 case.
Iowa: Dubuque, April 18-25, 1 case.
Maine: Eastport, April 22, 3 cases.
Maryland: Baltimore, April 18-25, 1 case.
Massachusetts: April 18-25, Cambridge, 1 case; Holyoke, 4 cases; Lowell, 2 cases.
Michigan. April 18-25, Flint, 1 case; Grand Rapids, 2 cases; Port Huron, 1 case.
Missouri: St. Louis, April 19-26, 5 cases.
Nebraska: Omaha, April 18-25, 4 cases.
New Hampshire: April 18-25, Manchester, 5 cases; Nashua, 3 cases.
New York: Buffalo, April 18-25, 4 cases.
Ohio: April 18-25, Cincinnati, 2 cases, 1 death; Dayton, 1 case; Hamilton, 1 case.
Oregon: April 22, 250 cases.
Pennsylvania: Altoona, April 18-25, 2 cases; Carbondale, April 14-21, 2 cases; McKeesport, March 28-April 4, 3 cases, April 18-25, 3 cases; Philadelphia, April 18-25, 22 cases, 1 death; Pittsburg, April 18-25, 18 cases, 2 deaths; Reading, April 13-20, 4 cases; Scranton, April 18-25, 6 cases.
South Carolina: Charleston, April 18-25, 2 cases, 2 deaths.
Tennessee: Memphis, April 18-25, 1 case.
Utah: Salt Lake City, April 13-25, 16 cases.
Washington: Tacoma, April 13-20, 2 cases.
Wisconsin: Milwaukee, April 18-25, 1 case.

SMALLPOX—FOREIGN.

Belgium: Brussels, April 4-11, 6 deaths.
Brazil: Rio de Janeiro, March 29-April 5, 3 deaths.
Canary Islands: Las Palmas, March 21-April 4, 44 cases.
China: Hongkong, March 7-14, 4 cases, 1 death.
Colombia: April 5-12, Barranquilla, 1 death; Cartagena, 1 death.
France: Rheims, April 5-12, 1 death.
Great Britain: Birmingham, April 4-11, 6 cases; Bristol, March 28-April 11, 6 cases, 3 deaths; Cardiff, Feb. 21-March 28, 22 cases, 1 death; Dundee, March 28-April 11, 1 case; Leeds, April 4-11, 7 cases, 1 death; Liverpool, April 4-11, 66 cases, 2 deaths; London, April 4-11, 5 cases; Manchester, April 4-11, 11 cases, 1 death; Newcastle-on-Tyne, March 21-April 11, 4 cases; South Shields, March 21-April 11, 8 cases.
India: Bombay, March 24-31, 100 deaths; Calcutta, March 21-28, 2 deaths.
Mexico: City of Mexico, April 5-12, 14 cases, 6 deaths.
Russia: March 27-April 4, Moscow, 1 case, 1 death; Odessa, 2 cases, 2 deaths; St. Petersburg, 33 cases, 4 deaths.
Straits Settlements: Singapore, March 7-14, 1 death.
Turkey: Alexandretta, March 27-April 4, 3 cases.

SMALLPOX—INSULAR.

Philippines: Manila, March 7-21, 9 cases.

YELLOW FEVER.

Brazil: Rio de Janeiro, March 29-April 5, 33 deaths.
Colombia: Panama, April 15-22, 2 cases, 1 death.
Costa Rica: Limon, April 17, 1 death.
Mexico: Vera Cruz, April 11-25, 10 cases, 4 deaths.

CHOLERA—INSULAR.

Philippines: Provinces, Feb. 28-March 14, 326 cases, 225 deaths; not previously reported, 467 cases, 316 deaths.

CHOLERA—FOREIGN.

India: Bombay, March 24-31, 1 death; Calcutta, March 21-28, 52 deaths.

PLAGUE—INSULAR.

Hawaii: Honolulu, April 15, 1 death.
Philippines: Manila, March 7-21, 24 cases, 17 deaths.

PLAGUE—FOREIGN.

China: Hongkong, March 7-14, 17 cases, 17 deaths.
India: Bombay, March 24-31, 1,755 deaths; Calcutta, March 21-28, 816 deaths.